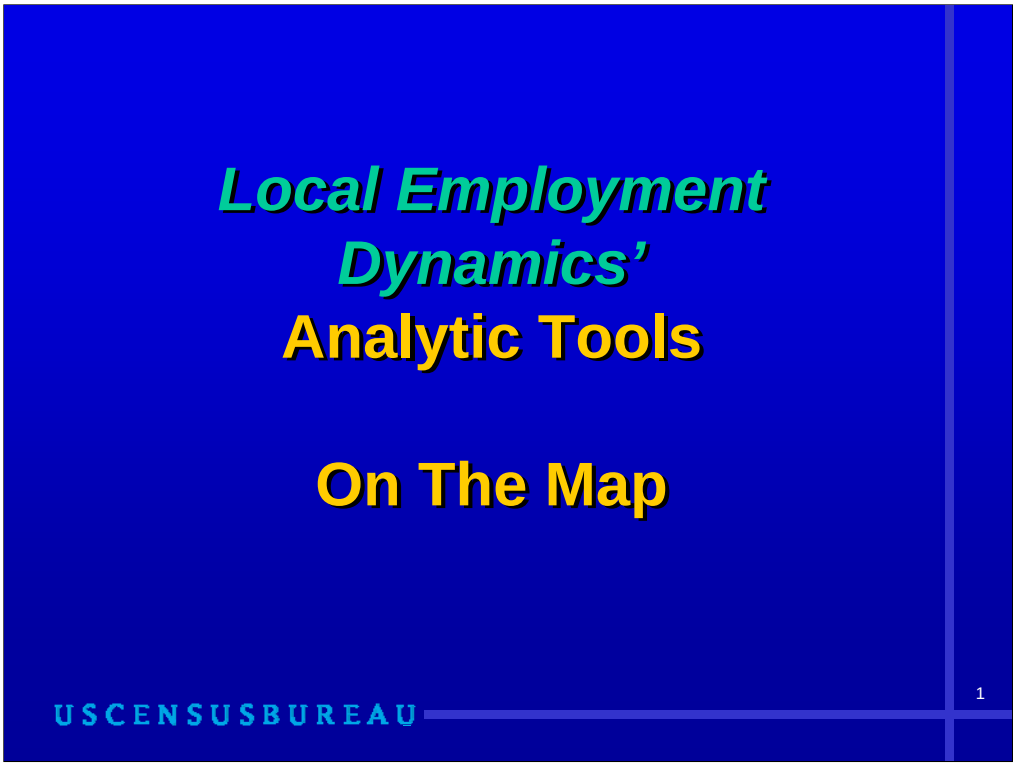
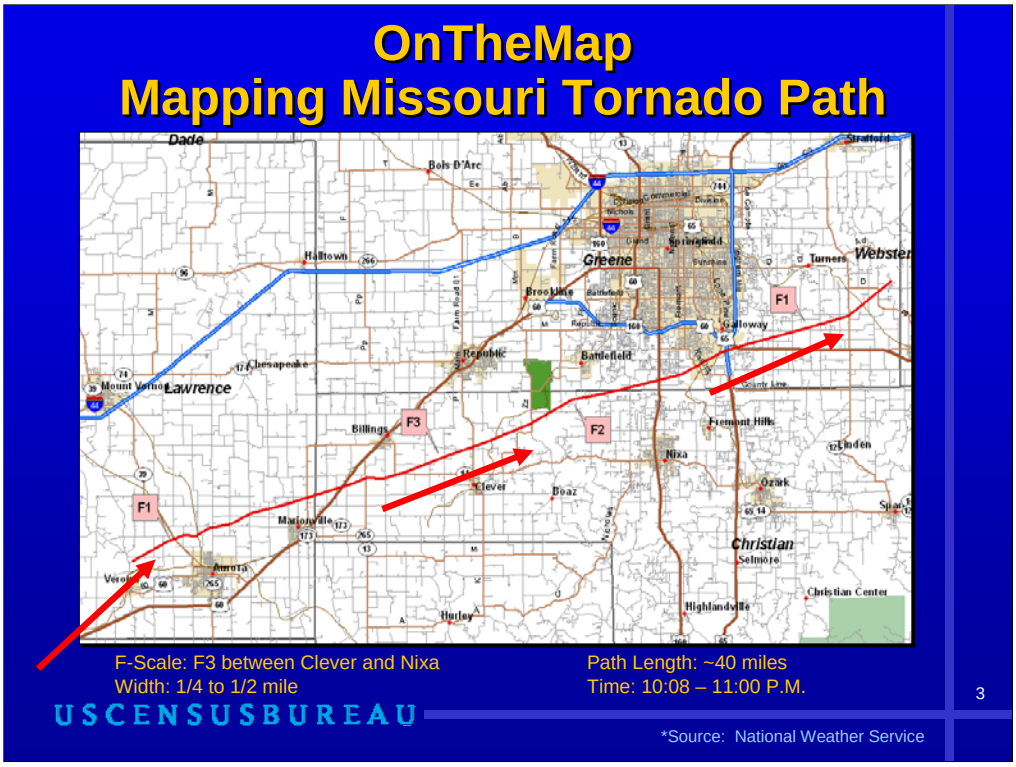


The Census Bureau has a powerful array of new tools to assist economic developers, planners, businesses and communities, thanks to a partnership between the U.S. Census Bureau and more than eighty percent of the United States population.

These tools can help you answer questions about the local economy, top industries, and the workforce. They also map local commuting patterns.

OnTheMap is a terrific tool for

- Economic Planning
  - Where is the labor supply located?
  - Where should a company locate a new building/shop
- Transportation planning & analysis
  - Between which areas do workers commute?
- Emergency management
  - Daytime population estimates

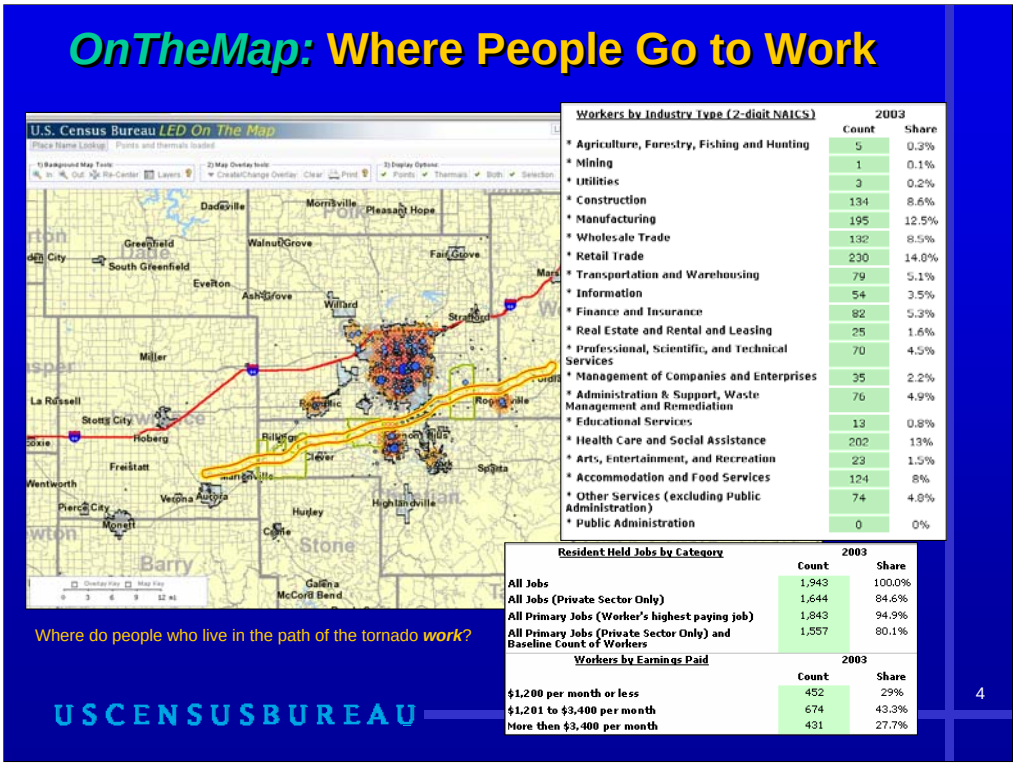


Now we want to look at another powerful tool, OnTheMap. In this instance, users of LED have used OnTheMap to map out the impact of a recent tornado.

A tornado touched down in southern Lawrence County, Missouri on March 13, 2006.

The tornado touched down at approximately 1000 pm and remained on the ground for just under an hour. The path was approximately 40 miles long.

The track is illustrated here, moving from west to east, just south of Springfield.



Workers by Industry Type (2-digit NAICS)	2003 Count	2003 Share
* Agriculture, Forestry, Fishing and Hunting	5	0.3%
* Mining	1	0.1%
* Utilities	3	0.2%
* Construction	134	8.6%
* Manufacturing	195	12.5%
* Wholesale Trade	132	8.5%
* Retail Trade	230	14.8%
* Transportation and Warehousing	79	5.1%
* Information	54	3.5%
* Finance and Insurance	82	5.3%
* Real Estate and Rental and Leasing	25	1.6%
* Professional, Scientific, and Technical Services	70	4.5%
* Management of Companies and Enterprises	35	2.2%
* Administration & Support, Waste Management and Remediation	76	4.9%
* Educational Services	13	0.8%
* Health Care and Social Assistance	202	13%
* Arts, Entertainment, and Recreation	23	1.5%
* Accommodation and Food Services	124	8%
* Other Services (excluding Public Administration)	74	4.8%
* Public Administration	0	0%

Resident Held Jobs by Category	2003 Count	2003 Share
All Jobs	1,943	100.0%
All Jobs (Private Sector Only)	1,644	84.6%
All Primary Jobs (Worker's highest paying job)	1,843	94.9%
All Primary Jobs (Private Sector Only) and Baseline Count of Workers	1,557	80.1%

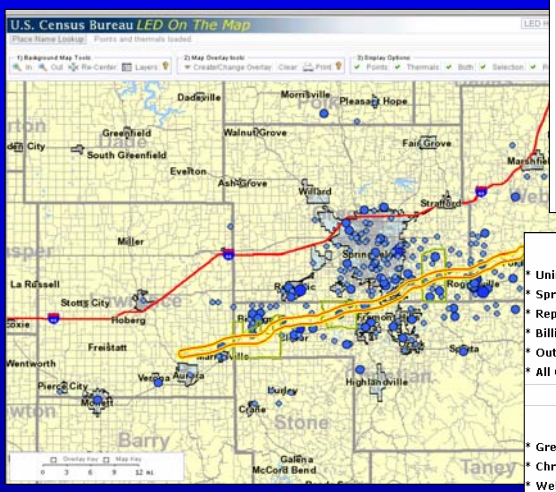
Workers by Earnings Paid	2003 Count	2003 Share
$1,200 per month or less	452	29%
$1,201 to $3,400 per month	674	43.3%
More then $3,400 per month	431	27.7%

OnTheMap lets us replicate the storm track, using the buffer tool. We can turn on a layer to show census block groups to ensure that we only select those impacted by the storm and we can set the buffer to a ½ mile width, the same width as the tornado.

The area we've selected in this map is the place where people live. The red and blue mass in the center of the map, Springfield MO, is where they go to work, indicated by points and thermal grids.

The report generated from OnTheMap tells us much about the workers -- that there are more than 1,900 jobs held by residents of the outlined area, that 43% of the employed people who live in the tornado path earn between $1201-3400/month, and that the largest percentage about 15%, work in retail trade.

OnTheMap: Where Workers Live



Where do workers employed at jobs located in the path of the tornado ***live***?

QWI Indicators - Private Sector Jobs	2003:Q2
* Employment (Beginning-of-2nd quarter)	248
* Employment, Stable Jobs	210
* Separations, Stable Jobs	24
* New Hires, Stable Jobs	21
* Firm Job Gain	38
* Firm Job Loss	21
* Employment (reference quarter)	326
* Average Monthly Earnings, Stable Jobs	$ 2,283
* Average Monthly Earnings Separations from Stable Jobs	$ 975
* Average Monthly Earnings, New Hires, Stable Jobs	$ 2,128

Cities/Towns Where Workers Live	2003	
	Count	Share
* Unincorporated Areas	112	45.2%
* Springfield, MO	52	21%
* Republic, MO	14	5.6%
* Billings, MO	12	4.8%
* Out-of-State	9	3.6%
* All Other Locations	49	19.8%

Counties Where Workers Live	2003	
	Count	Share
* Greene Co., MO	97	39.1%
* Christian Co., MO	73	29.4%
* Webster Co., MO	22	8.9%
* Lawrence Co., MO	14	5.6%
* Out-of-State	9	3.6%
* All Other Locations	33	13.3%

5

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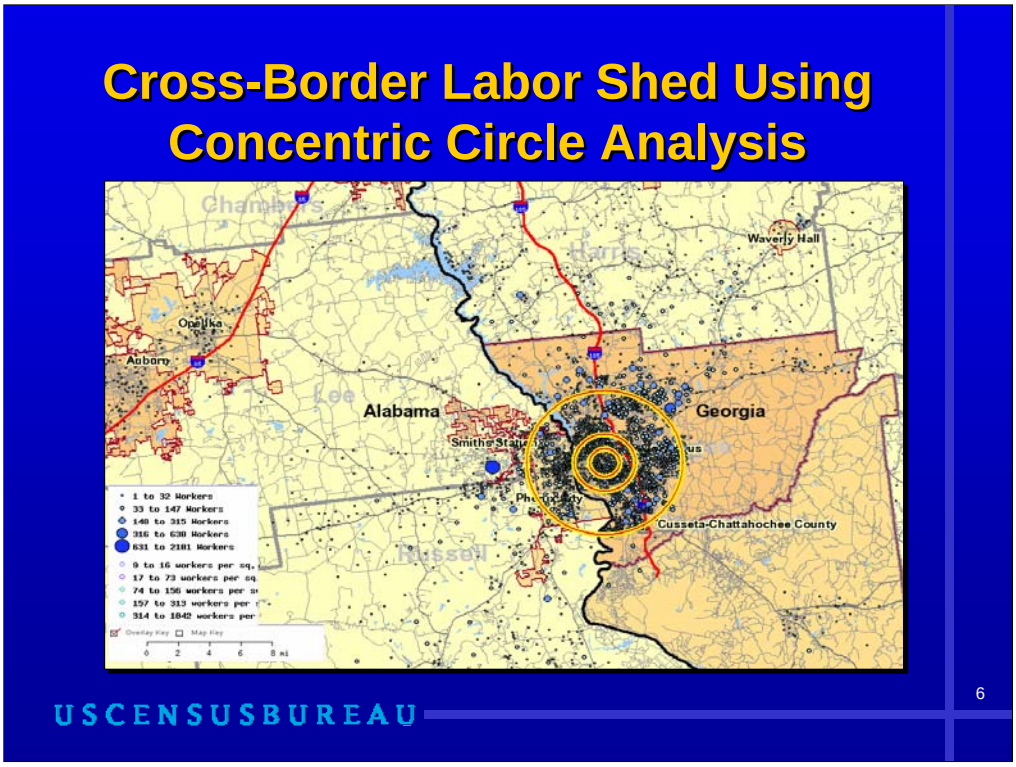
Using the same area selection, we can now look at the inverse relationship – that is, of those people who work in the tornado's track, where do they live. The blue points are more dispersed.

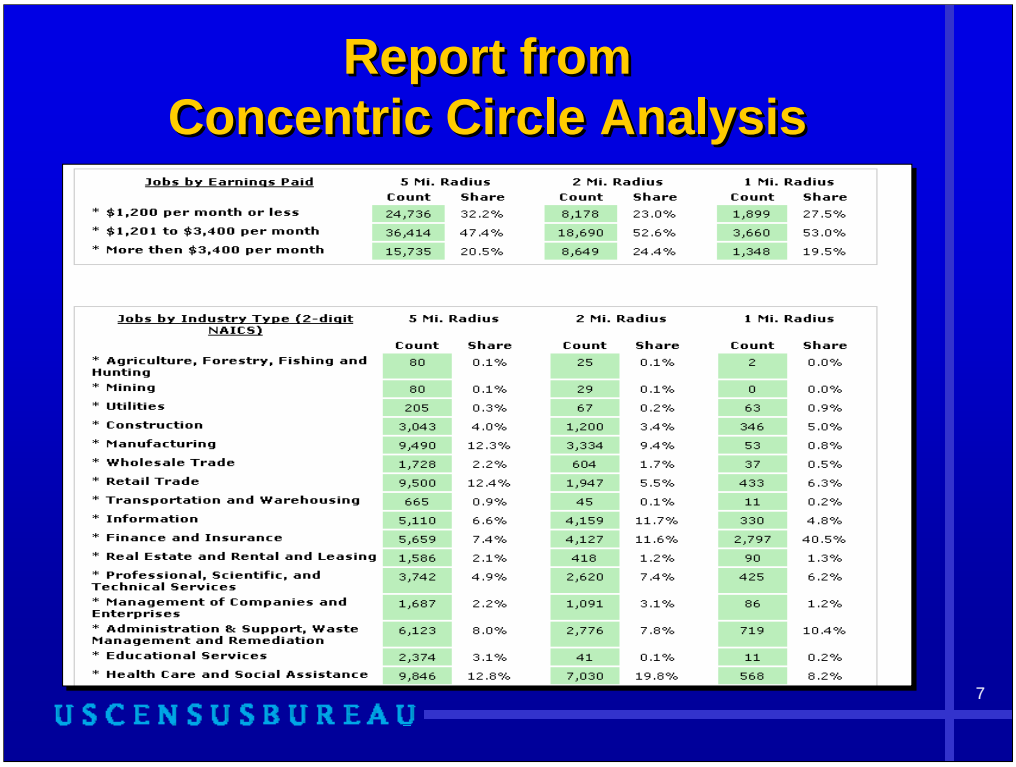
Our reports tell us that about 20% live in Springfield but that 29% live in neighboring Christian county. We can also see the quarterly workforce indicators for those people who work in the storm track – the average monthly salary for a new hire at $2,100, the number of job gains and losses.



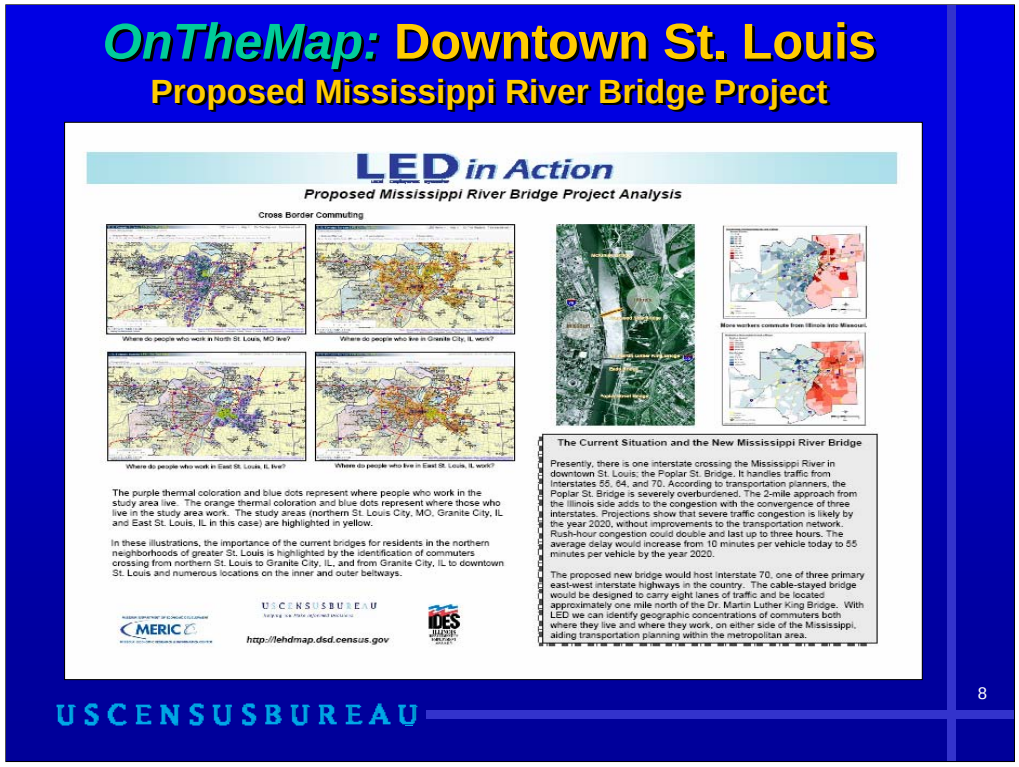
The location of jobs is in Georgia, near Fort Benning. Workers from the selected areas live not only in Georgia, in surrounding towns and counties, but also in communities across the state border in Alabama.

In the Labor Shed/ Shed Report mode, OnTheMap shows the top 10 cities, counties and states where workers employed in a partner state live (even if their neighboring state is not an LED partner.)

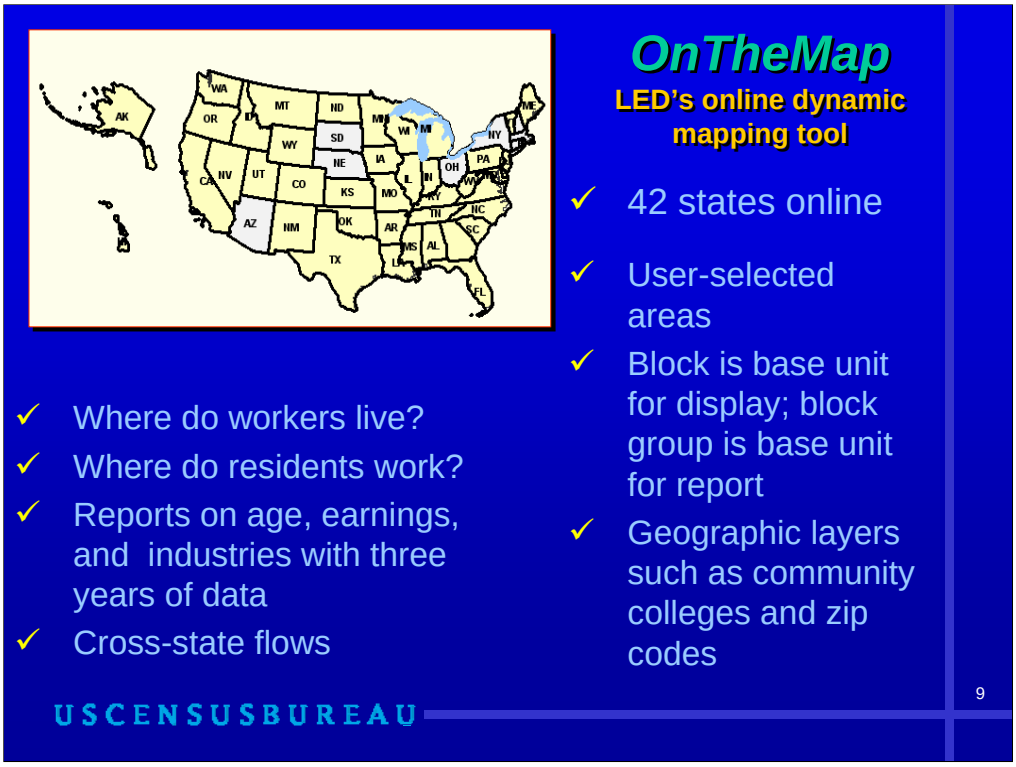
Commute shed maps, however do not cross state lines. They do show where residents of a partner state are employed, but only for workplaces within that state.



The concentric circle analysis report shows where workers live, stratified by the size of the concentric circles selected. For instance here, we selected 1-, 2- and 5-miles from a central spot, near Fort Benning, Georgia. The profile of workers who live within 1-mile, 2-miles and 5-miles of the selected spot are shown, with numbers often growing larger as the radius of the circle is expanded. However, in this report, we can see that the number of people who live within 1-mile of the base and work in Finance and Insurance is about 40% while at 5-miles from the base, the percentage drops significantly to only 7 percent.



OnTheMap enabled planners to determine how many commuters cross the Mississippi River bridge to travel to and from work each day, to help decide whether to increase bridge capacity or build a new bridge.



OnTheMap is a web-based, interactive mapping application that shows where people work and where workers live on maps with companion reports on their age, earnings, and industry distributions.

It permits users to zoom in for small area viewing (neighborhoods or small towns) or zoom out to view metropolitan areas or regional labor markets. It provides:

•A User Guide with a glossary of terms

•Selection of geography by layers including Workforce Innovations in Regional Economic Development (WIRED) regions, Workforce Investment Areas, Congressional Districts and tribal lands

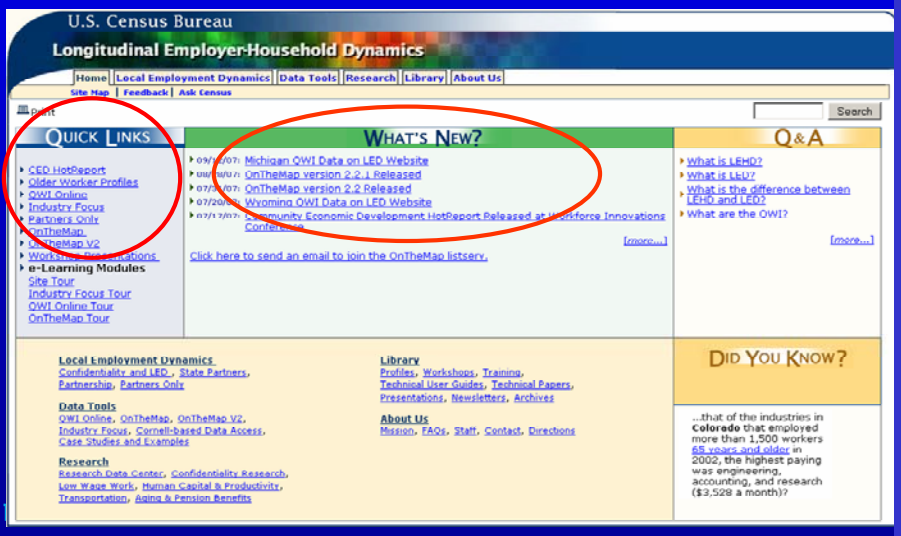
•Three types of reports

•Travel sheds and Paired area mapping

•Concentric ring analysis

Local Employment Dynamics' Tools and Features

http://lehd.did.census.gov



Key features on the home page include QuickLinks to three very powerful analytic tools: QWI Online, On the Map, Industry Focus as well as information for state partners and website users.

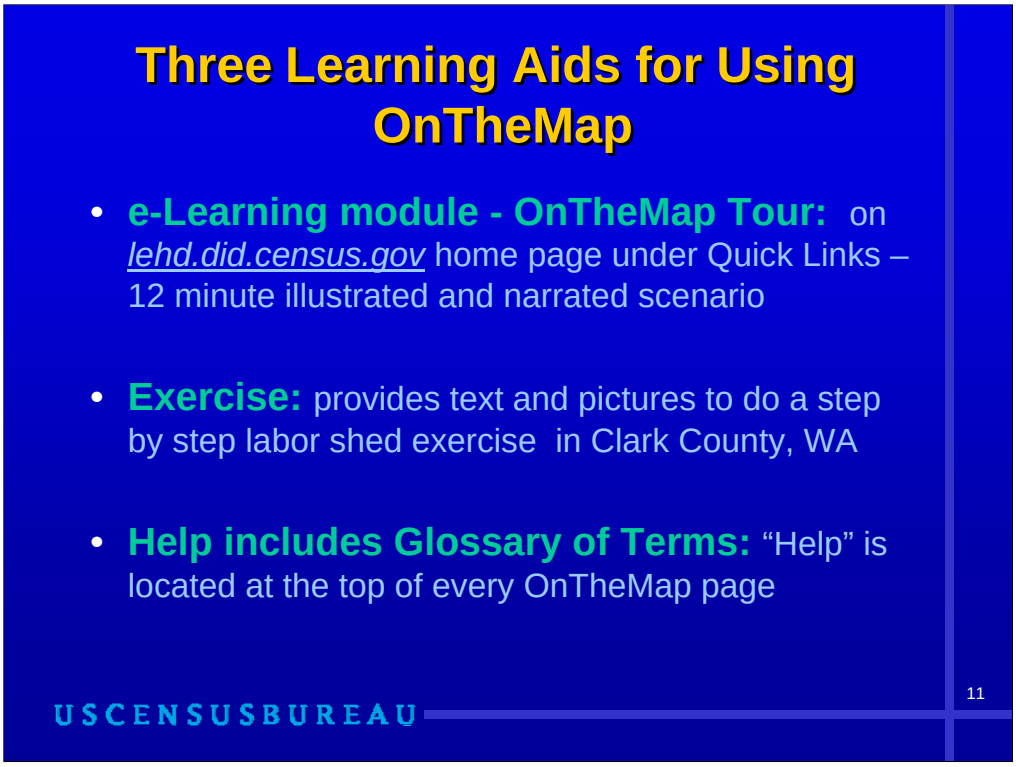
The center section provides the latest news about the LED program: new partners, the latest releases and information about training.

Q&A about LED are located prominently on the home page.

Ten minute interactive e-learning modules step you through the site and the three data tools.

A "factoid" from the LED data rotates in the lower right corner and links users to profile reports on Older Workers available for 12 states.

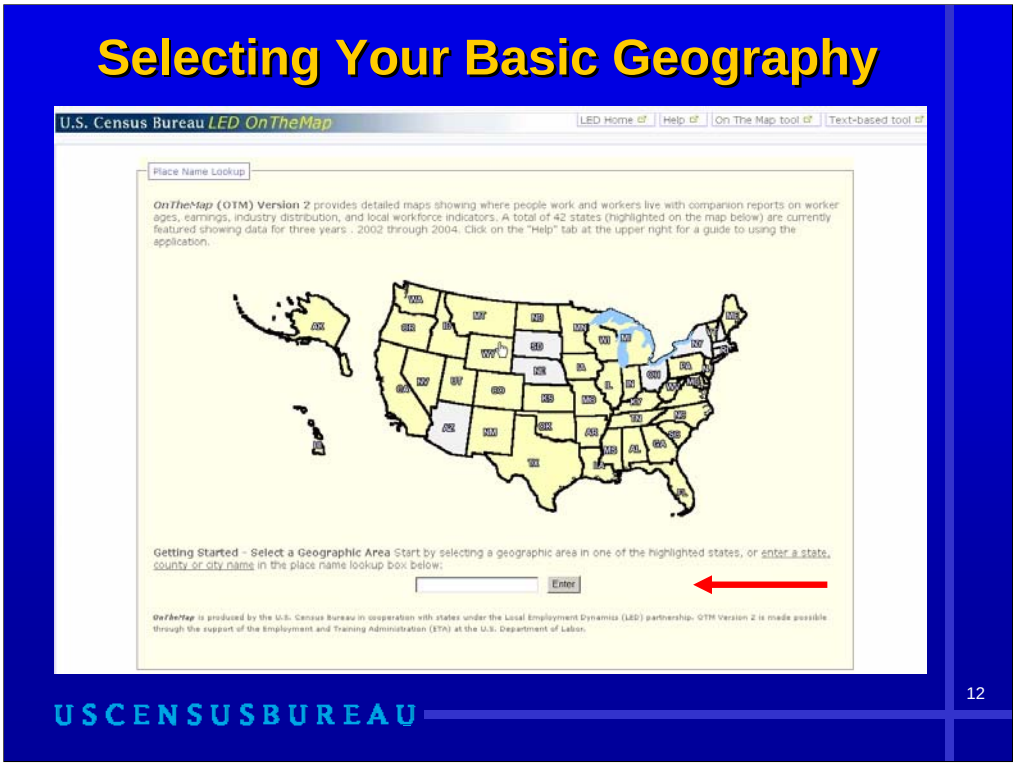
The LED site is searchable using Google, which confines its search to the LED pages only.



Besides using this tutorial or jumping into the software and exploring it, there are three additional resources you might consult to help you learn the OnTheMap tool.

The first is an interactive narrated tour of the OnTheMap tool which takes the user through a scenario that is applicable to labor market specialists or economic developers. This is located in Quick Links on the LED home page. It takes about 13 minutes to complete the e-learning module.

Finally, On The Map's Help function (top of every OTM page) includes a Glossary of Terms that may be useful in distinguishing steps and data elements.



STEP: Type in "irv" in the box

STEP: click Enter

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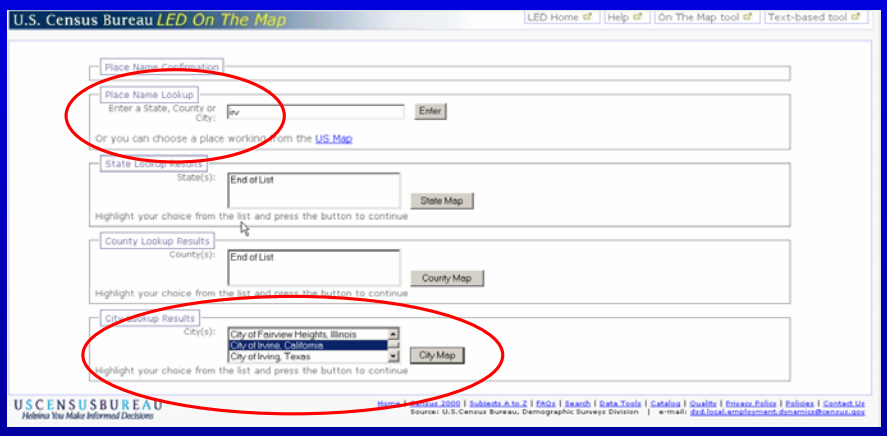
There are two ways to select your local geography. Ensure that the state is a participating member of the mapping partnership (only 42 in October 2007).

Option: click on state from home page; you'll get a map of the entire state with little detail

Preferred Option: type in some portion of the city or county you want to analyze

On the Place Name Lookup screen that appears when you enter the application, type in part of the name "Irvine" ("Irv" will give more results) and press Enter. You should not add "City of" or "County" to the place name unless it is part of the actual name.

Type “Irv” in Place Name Lookup; Highlight in City Lookup Results



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13

STEP: Highlight the City of Irvine, CA

STEP: Click on City Map

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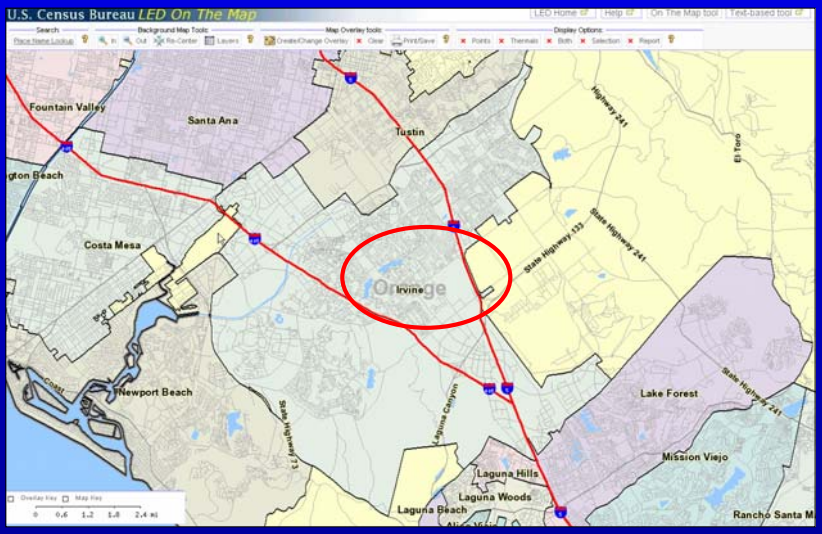
On the confirmation screen that appears next, use your mouse to highlight “City of Irvine, California” and then press the City Map button just to the right.

A very common error is to misspell or be too fancy in your name – less gives better results. Another is forgetting to highlight your selection before you press City or County button.

Displaying City of Irvine *OnTheMap*



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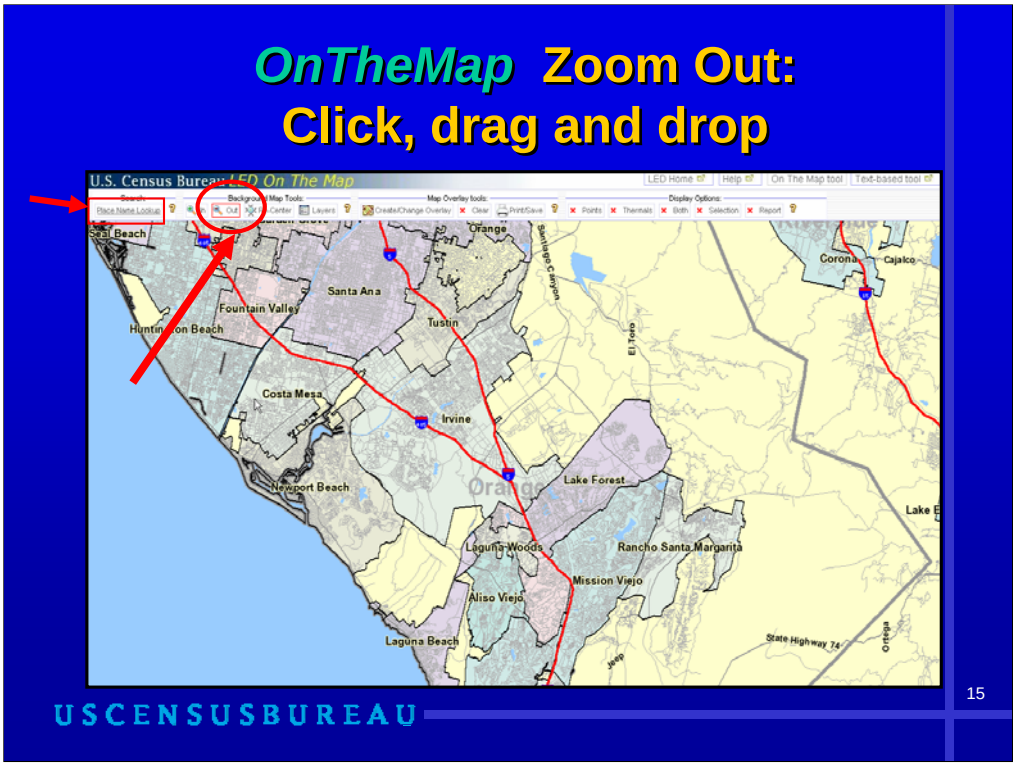
14

The application's interactive map viewer will be displayed and your selected geography, Irvine, will be centered in the mapping frame.



STEP: Click the Out button from Background Map Tools.

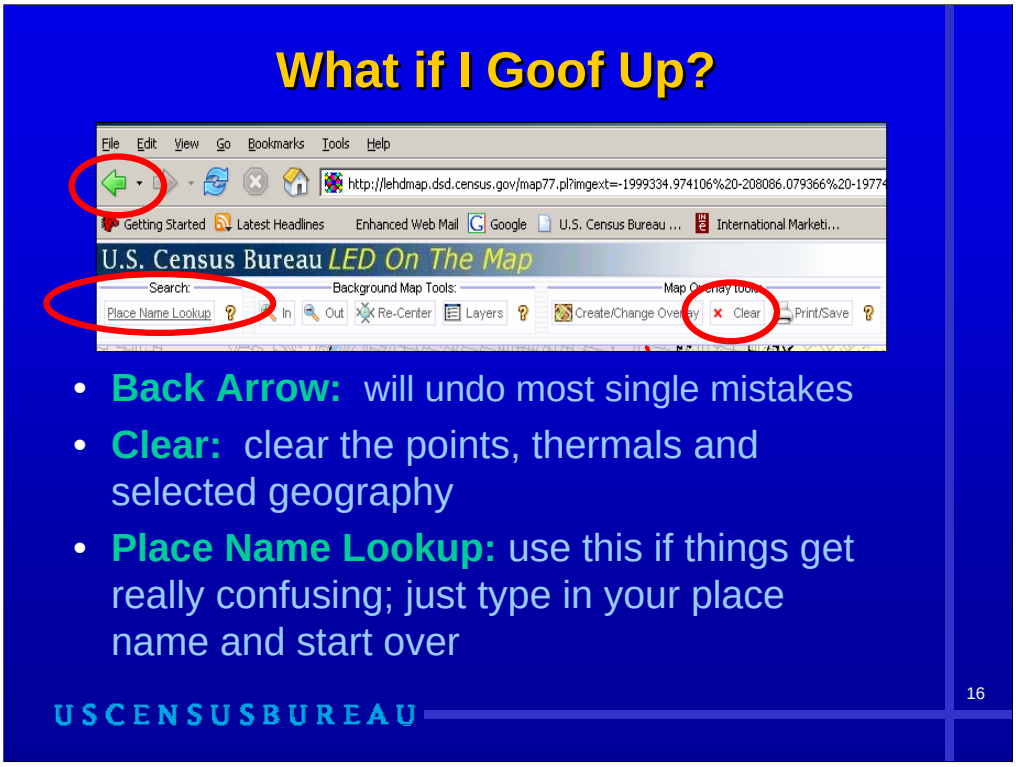
STEP: Resize the map by drawing a "drag box" with your mouse on the map.

NOTE: A drag box means you put the mouse on one corner of the desired geography, then click / hold the left mouse button while dragging the mouse to the diagonal corner, then lift your finger off the mouse button to "drop."

The geographic coverage of the map expands and the center of the drag box becomes the center of the new map view.

Zoom in and Re-center work just like Zoom out. Be careful not to click unintentionally on the map while the red box indicates one of these tools is activated, or it will adjust the map in view. This is another common mistake. Just hit the back arrow to return to the former display.

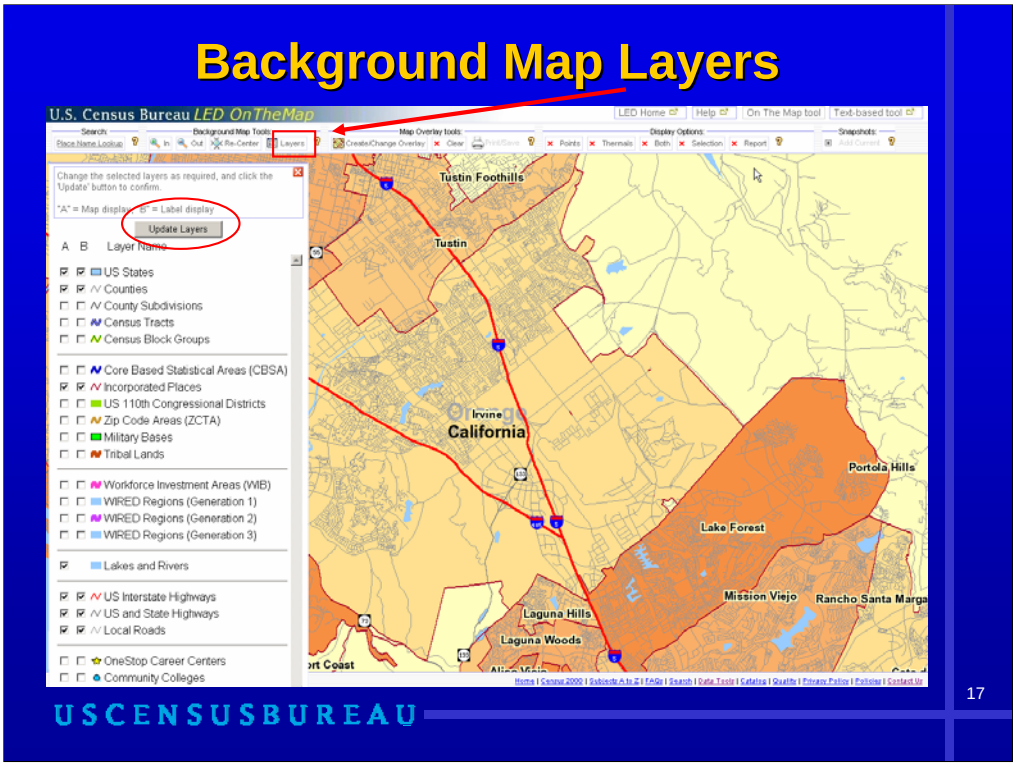
You can always click on "Place Name Lookup in the upper left corner of the screen to start over.



Making mistakes is part of learning how to use OnTheMap. Generally, you can recover from an error like zooming in or out too far by using the Back Arrow.

If you want to clear the screen to draw a new geography, use the Clear function from the Map Overlay Tool menu.

If the program begins to act strangely, like you cannot Re-Use the geography or generate a new report from the same geography, you may need to start your analysis over by selecting Place Name Lookup from the Search bar.



STEP: Click on Layers from the Background Map Tools.

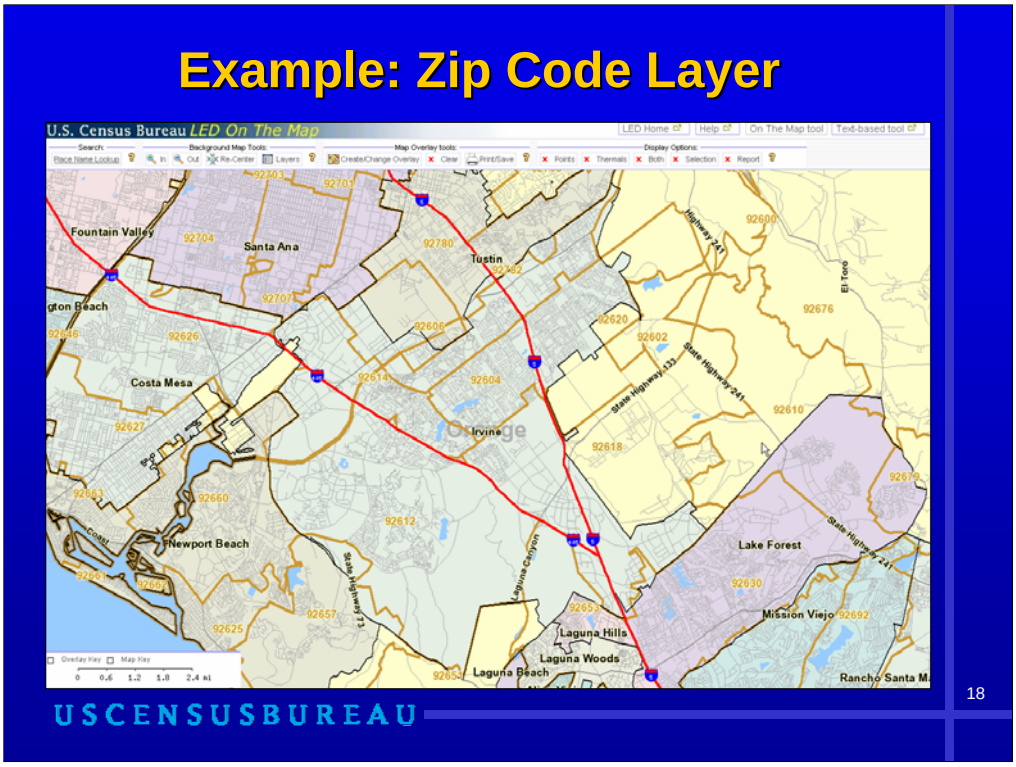
STEP: Click on the box in front of ZIP Codes to select that layer.

STEP: Click on Update Layers to add that layer to the map.

From the first menu, Background Map Tools, there is an option that allows you to display the basic map with different features. Layers allows you to add zip code tabulation areas, city names, military bases, community colleges, Career OneStop centers and more.

HINT: Some labels appear only at certain scales of the map (i.e. military bases do not show up at the state level.)

If you add the incorporated cities layer from the Background Map menu, you can then easily use the Incorporated Cities Layer Selection Tool within the Create Travel Shed toolbar.

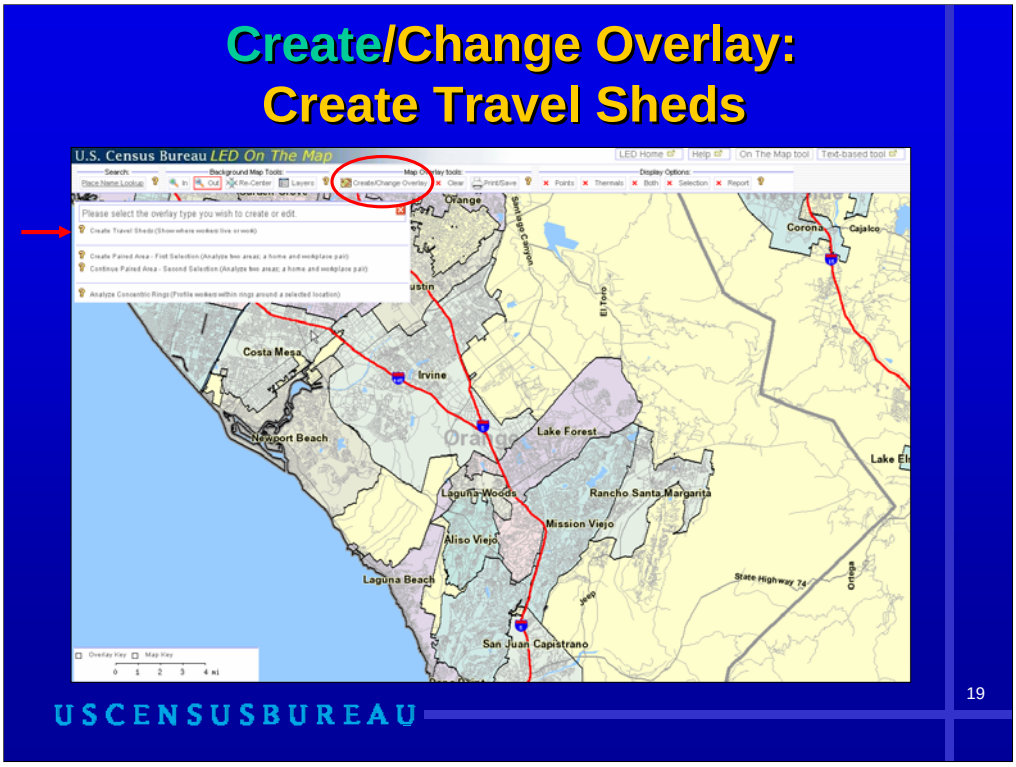


STEP: Click on Layers from Background Map Tools.

STEP: Click box in front of ZIP Codes to deselect it.

STEP: Click Update Layers.

That was just for practice. Too many layers will make the map more difficult to read, so we will turn off any layers we do not need to see. To turn off zip codes, go back to the Layers button in the Background Map Tools, click on it to bring up the choices of layers and click in the box in front of ZIP Codes to remove the checkmark, then hit Update Layers again.



STEP: Click on Create/Change Overlay.

STEP: Click on Create Travel Sheds.

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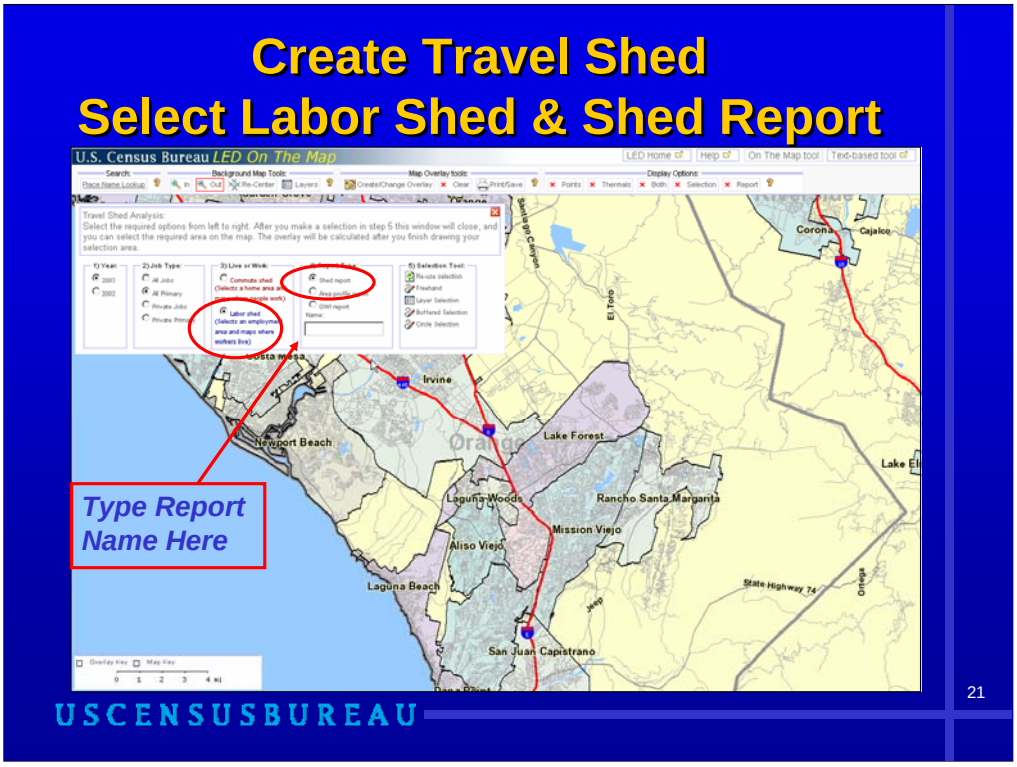
Now, from the **Map Overlay Tools** group at the top of the map, **press the Create/Change Overlay button. Choose Create Travel Sheds** from among the options presented.

Help is available by clicking on the "**?**" button at the upper right corner of the boxes with arrows pointing down to them from the top.

Travel Sheds Defined

Commute shed - Plots and reports where those who *live* in the selection area *work*.

Labor shed - Plots and reports where those who *work* in the selection area *live*.



STEP: Click on Year 2004.

STEP: Click on Job type—All Primary

STEP: Under Live or Work, click on Labor Shed.

STEP: Click on Shed under Report Type.

STEP: Type in identifying name, if desired.

Options within the Create Travel Sheds menu include:

Year – Data are available for 2002, 2003 or 2004. **Choose 2004**.

Job Type – **Choose "All Primary"** from among the four employment definitions. *Note: OnTheMap currently excludes military personnel, government employees, and the self-employed, although federal workers and the self-employed will soon be added.*

All Jobs – All public and private non-farm sector jobs

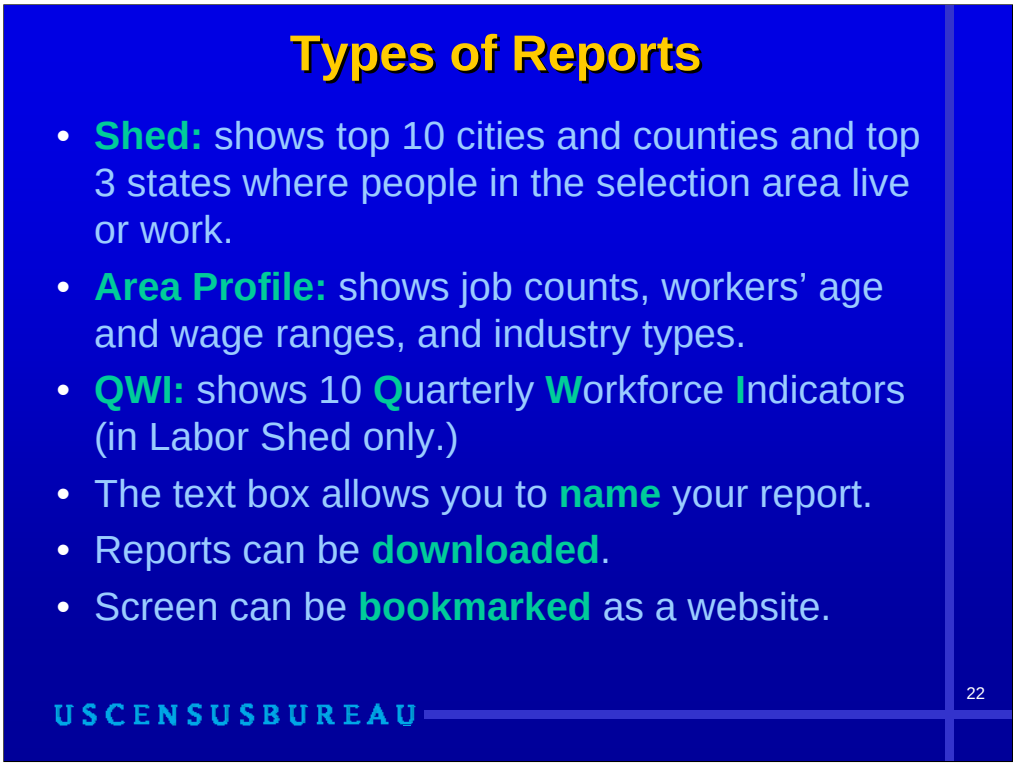
All Primary – The primary jobs (based on earnings) of all workers

Private Jobs – All private, non-farm jobs

Private Primary – The primary jobs of all private non-farm workers

Live or Work -- **Choose Labor Shed.**

Labor Shed selects a work area and maps where workers live. Commute Shed selects a home area and maps where people work.



Report -- Select Shed report from among the 3 types of reports:

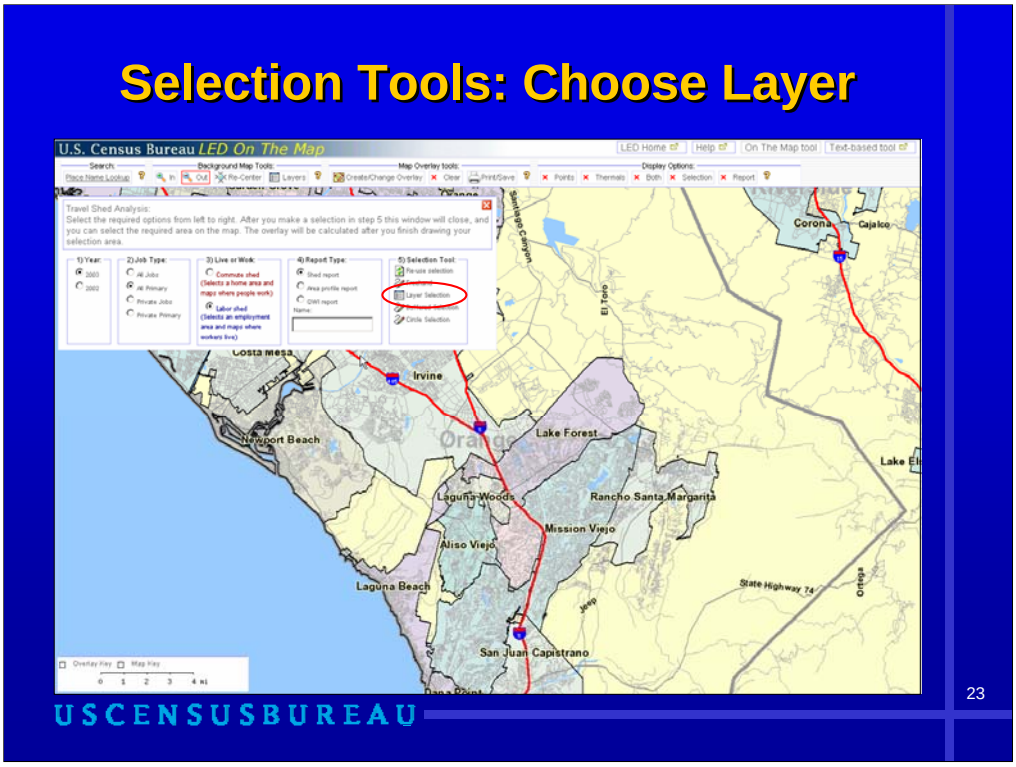
Shed shows where people live by city and county

Profile shows workers' age and wage ranges by industry

QWI shows 10 quarterly workforce indicators.

The text box allows you to type in a name for your report.

Reports can be downloaded.



STEP: Under Selection Tool, click on Layer Selection.

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The last option in the Create Travel Shed menu determines how you will select the geography where the jobs are located. The options include:

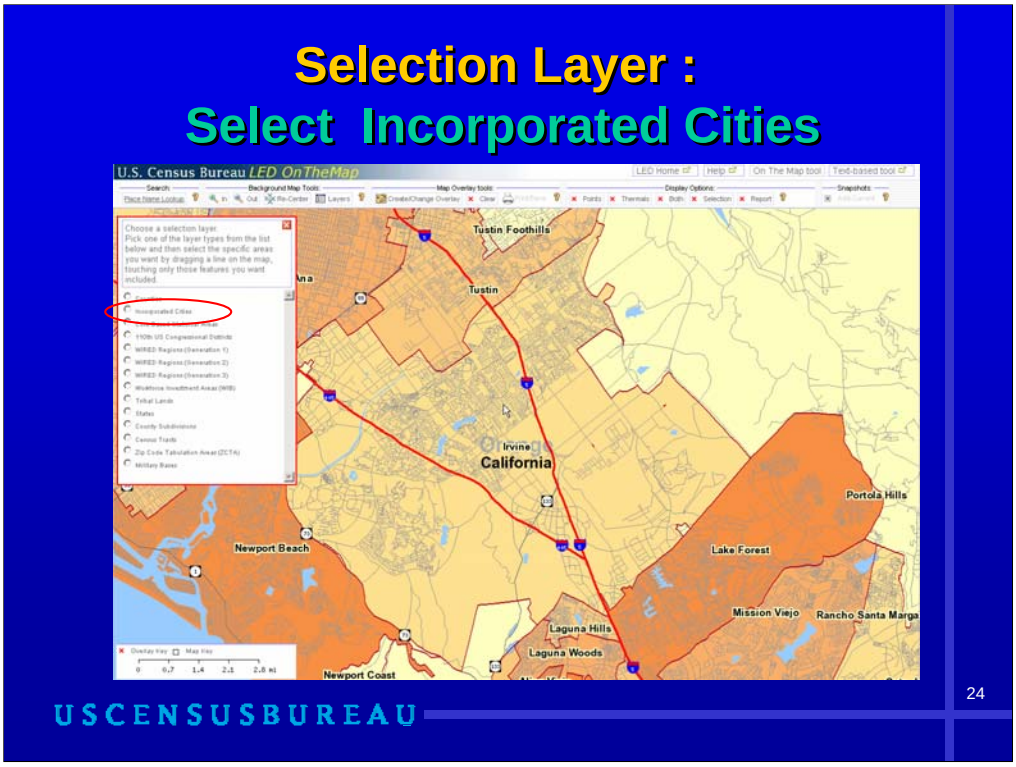
Re-use Selection - Recalls the most recent selection you made. This is also useful if you want to compare a labor shed and a commute shed for the same place or if you want to see a different report, based on the same shed type and location.

Freehand – Define an area by drawing directly on the map.

Layer Selection – Choose a specific map feature (zip code, city, and county are some options) within a selected map layer by dragging the mouse across a geographic feature on the map.

Buffered Selection – Create a corridor study area by drawing a line along a highway or road and set the distance on either side of the line – ½ mile or greater.

Circle Selection – Click on a map location to create an area ring of a selected radius, like 10 miles, around the location.



STEP: Choose Incorporated Cities.

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Selection layers include:

Counties

Incorporated Cities

Core- Based Statistical Areas

110th U.S. Congressional Districts

Workforce Innovations in Regional Economic Development (WIRED) Generation 1

WIRED Generation 2

WIRED Generation 3

Workforce Investment Areas

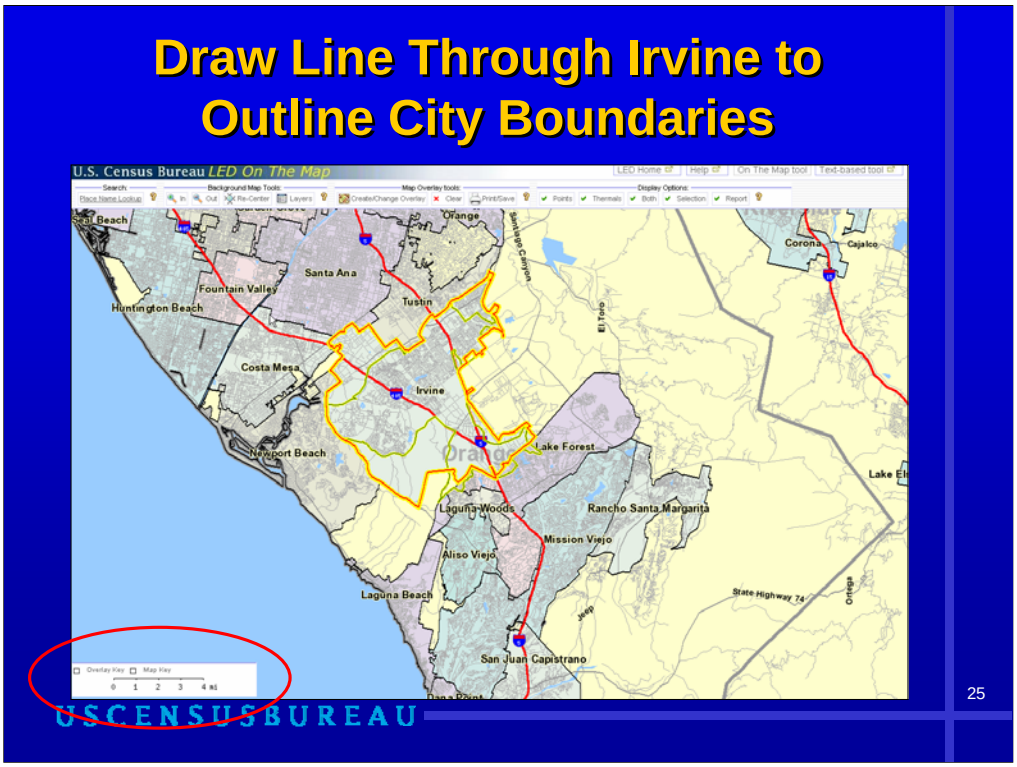
Tribal areas

States

County Subdivisions

Zip codes Tabulation Areas

Military Bases



STEP: Click near the word "Irvine" on the map.

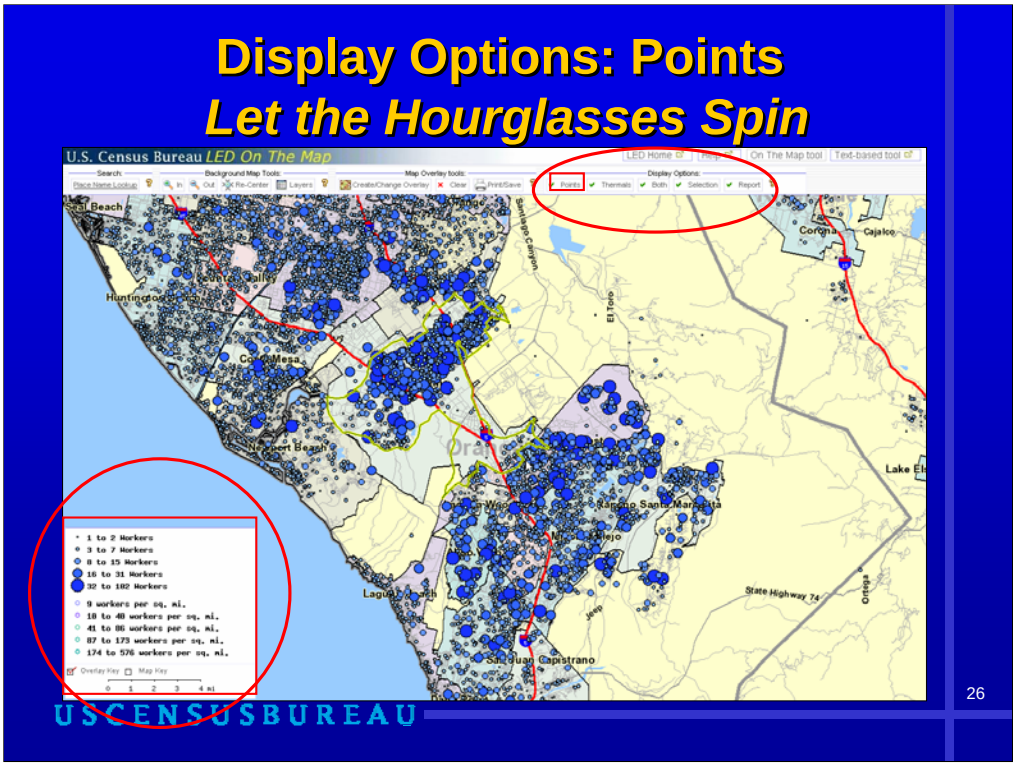
STEP: Hold down the left mouse button and drag across some part of Irvine.

All cities touched by this line will be included in the resulting selection area. The boundary of Irvine will be highlighted along with any census block groups whose centers fall inside the city boundary.

This slide shows the boundaries of the city highlighted after a line has been drawn to indicate the area of interest, using the Layers Selection tool.

A common mistake after hitting the GO button is to look at the map and wait for it to change without clicking on the map and holding down the left mouse key to mark the area you would like to see. The Layers and Buffered selection require a line be drawn on the map to indicate the area of interest while the Circle selection requires you to click on a single, central point.

Note the Overlay and Map Key box in the lower left of screen. You will want to activate it by clicking inside the box once you've chosen a display option.



STEP: Click on Points under Display Options.

STEP: Click to activate the Overlay Key at bottom left.

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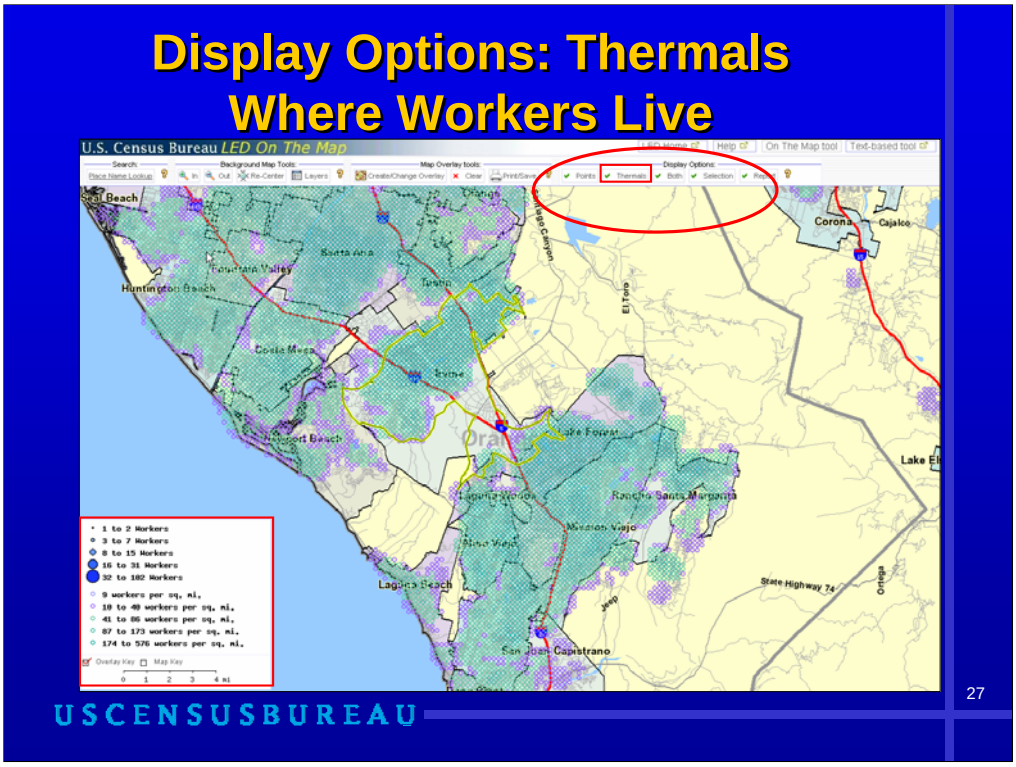
Now that you've selected the place where people work, Irvine, go to the final menu, Display Options.

When you have selected your geography, the application will start processing data to produce the labor shed map (where workers in that area live.) Do not click on anything while the hourglasses are spinning.

If you are using a very densely populated area, have a slow internet connection or very complicated boundaries, this may take some time.

The icons will change from X's to rotating hourglasses while the request is being processed and then change again to checkmarks when processing is complete.

It is vital that you check on the overlay key to see the number of workers per census block group represented by the size of points. The size of each point will represent a different number of workers from map to map.



STEP: From the Display Options menu, click on Thermals.

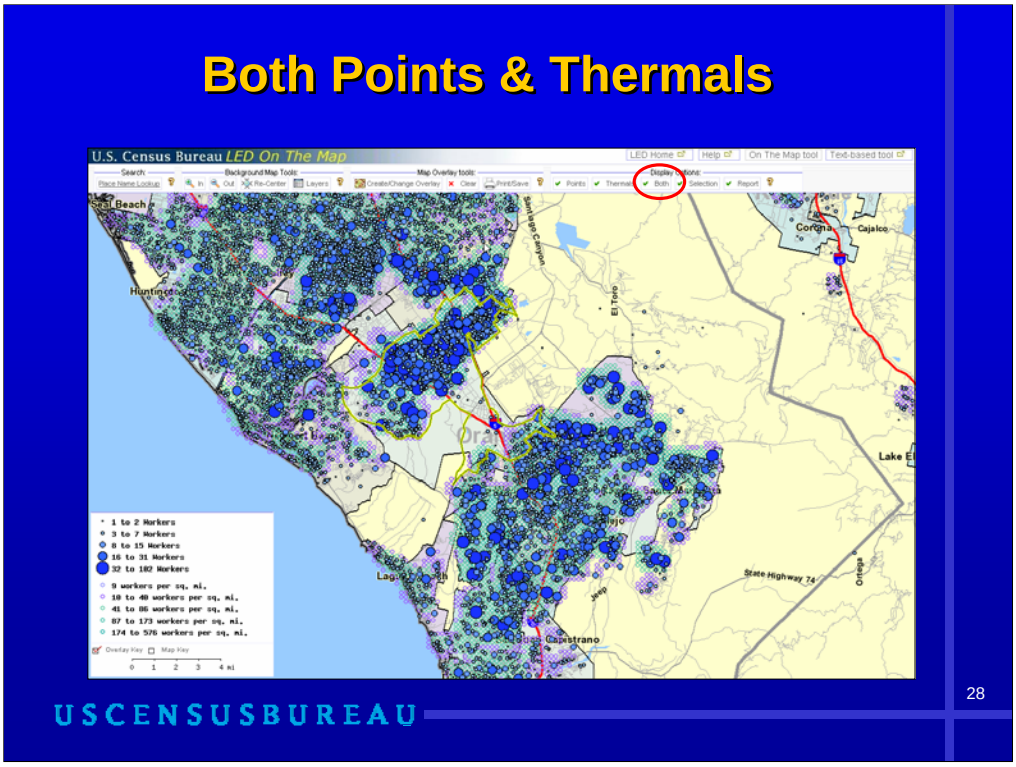
STEP: Click on the Overlay Key in bottom left corner.

You have two additional options to show the worker/job relationship. Select Thermals to see other ways to display the places where workers employed in Irvine live.

Thermals are shown in a purple to turquoise cross hatch and measures workers per square mile. It makes more sense to use this display option than points when analyzing a densely populated urban area where all the points would run together.

Check the overlay key to see what density of workers per square mile the various colors represent.

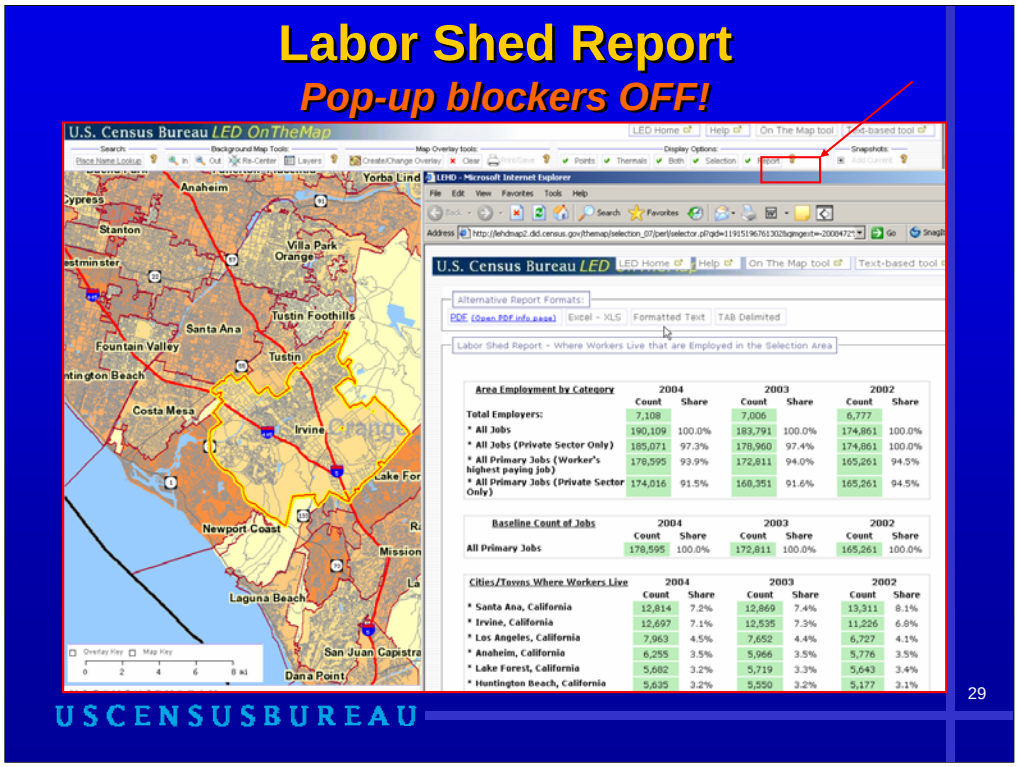
NOTE: Click on Report button in display options if you aren't sure what data you are viewing.



STEP: Click on "Both" from the Display Options toolbar.

You can display both thermals and points at the same time, using the Both option. A disadvantage is that you can hardly see your geographic boundaries with this much information on the map.

This example shows where the residences of Irvine's workers are concentrated (a labor shed.)



STEP: Under Tools, check that your POP UP Blocker is turned off (differs by IE, Firefox, etc.)

STEP: Click on the Report button in the Display Options menu.

STEP: Close report by clicking on the x in top right corner.

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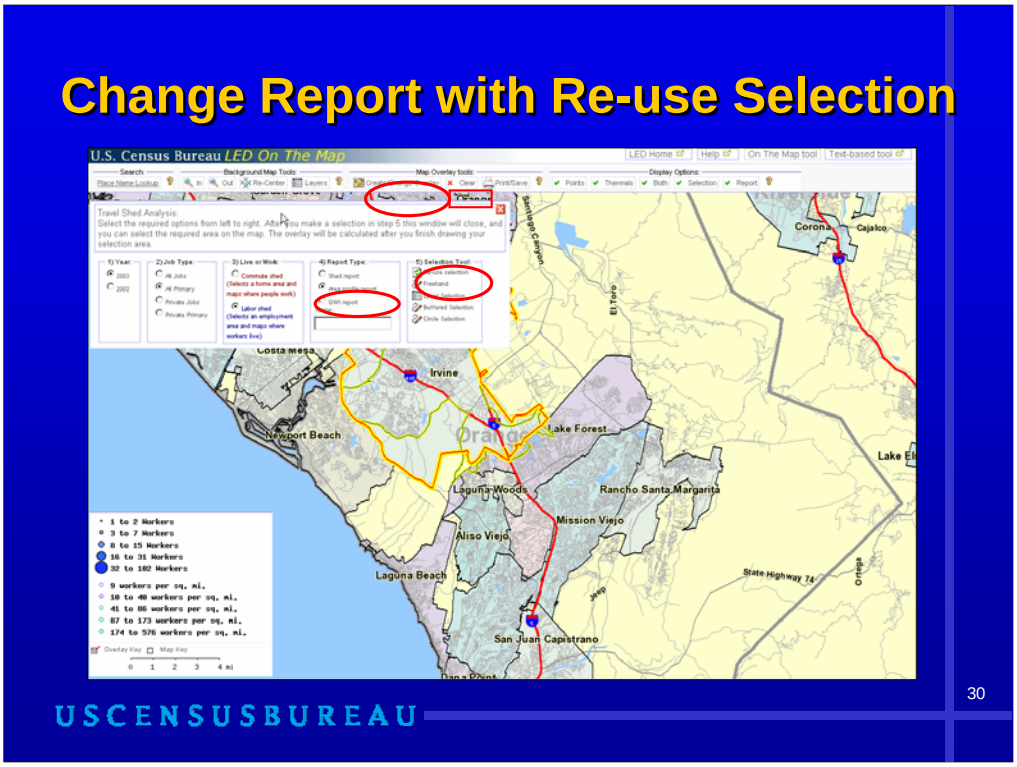
A new browser window will appear and the labor shed report will be created.

The report will take a short time to process during which the screen may go blank. If the window stays blank, check to make sure your pop-up blocker is turned off. If you must change your pop-up settings, you may need to re-plot your points or thermals. This is a common mistake.

The report includes the number of jobs, employers and workers living in the selection area, and a rank ordered list of the top ten cities, counties and states where these workers live. The report currently compares three years, 2002-2004, and gives estimates as well as percentages.



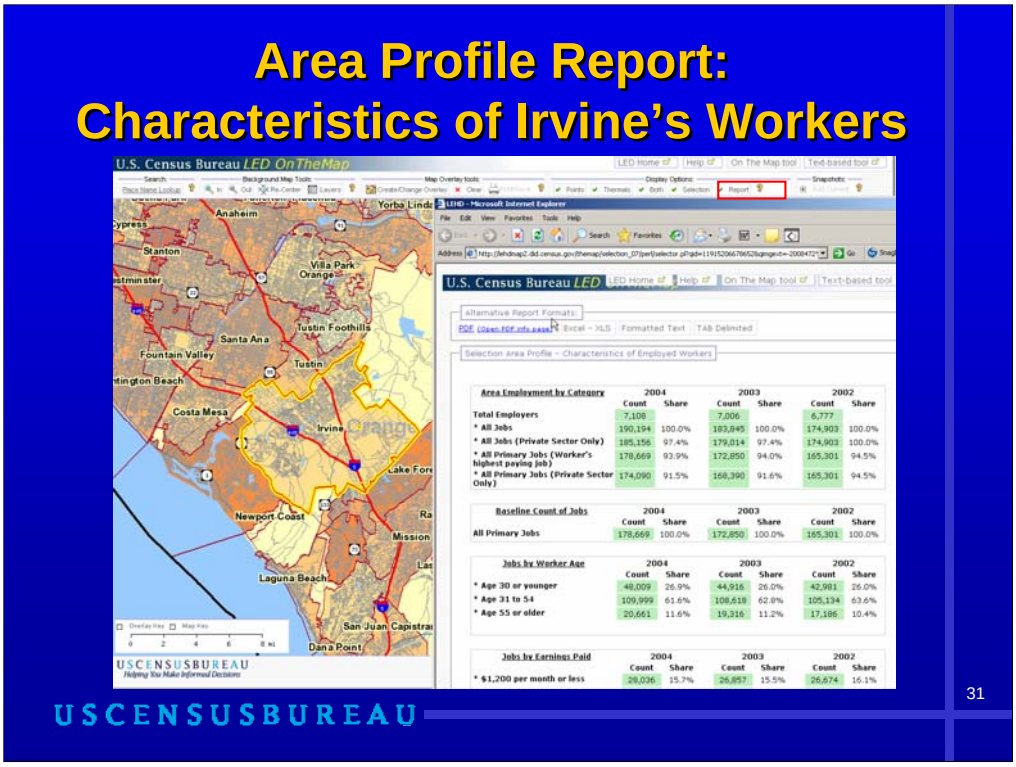
STEP: Click on Create / Change Overlay.

STEP: Click on Create Travel Shed.

STEP: Under Report Type click on Area Profile Report.

STEP: Under Selection tools Click on Re-use Selection to use same area for the new report.

In the event you'd like to choose a different Report Type, go back into the Create/Change Overlay menu and select the new report type, Area Profile. Then use the Selection Tool option for Re-use Selection. This allows you to keep the analysis for the labor shed for Irvine without having to redo all your selections, but get a different report of the characteristics of those workers.



STEP: Click on Report under Display Options.

STEP: Close report by clicking "x" at top right.

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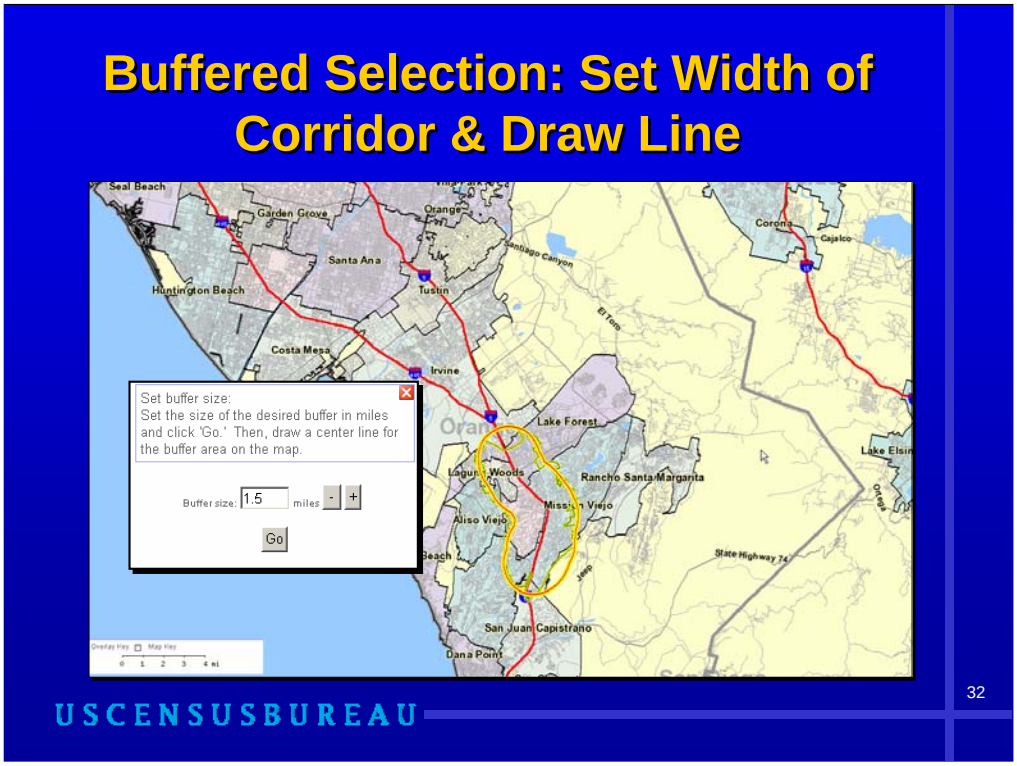
In a labor shed, the area profile report shows 2-digit NAICS industries, age and wage ranges for workers within Irvine's city limits, no matter where they live.

You can also use the Re-Use Selection to change your analysis from a Labor Shed to a Commute Shed, by simply changing that element of the Create/Change Overlay menu and using the Re-use Selection option.

If you had selected to see a commute shed instead, the points and thermals would map where Irvine's residents work and the area profile report would describe their industries, earnings and age ranges.



STEP: Click on Create/Change Overlay.

STEP: Click on Create Travel Shed.

STEP: Under Report Type, click on QWI Report.

STEP: Type Route 5—Laguna Hills Area in the Name Report text box.

STEP: Under selection tools, click on Buffered Selection.

STEP: Set width of corridor to 1.5 miles using – and + buttons.

STEP: Hit Go.

STEP: Click/drag/drop the mouse to draw a line.

STEP: Under Display Options, click on Report.

STEP: Close report by clicking "x" at top right

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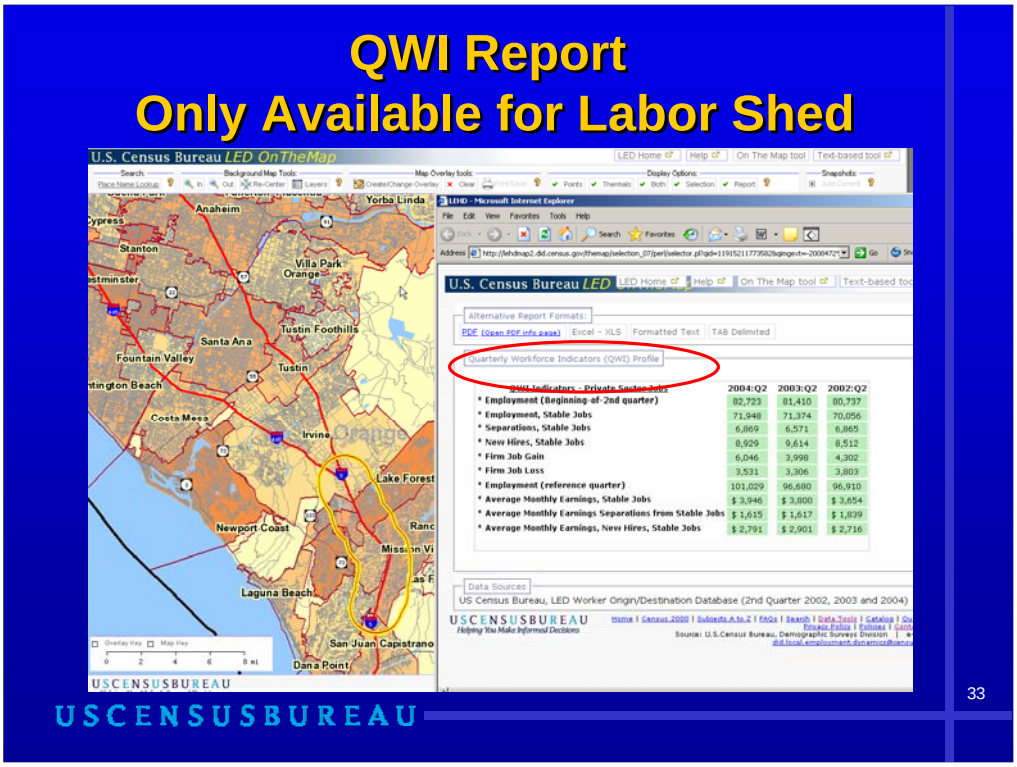
Here we've followed I-5 with our mouse to select our geography and the buffer tool has added 1.5 miles on either side of the line for the area of analysis.

The area where jobs are will be highlighted in yellow, with the grid of Census blocks contained in the area outlined.



STEP: Plot points (optional.)

STEP: Select Report from Display Options.

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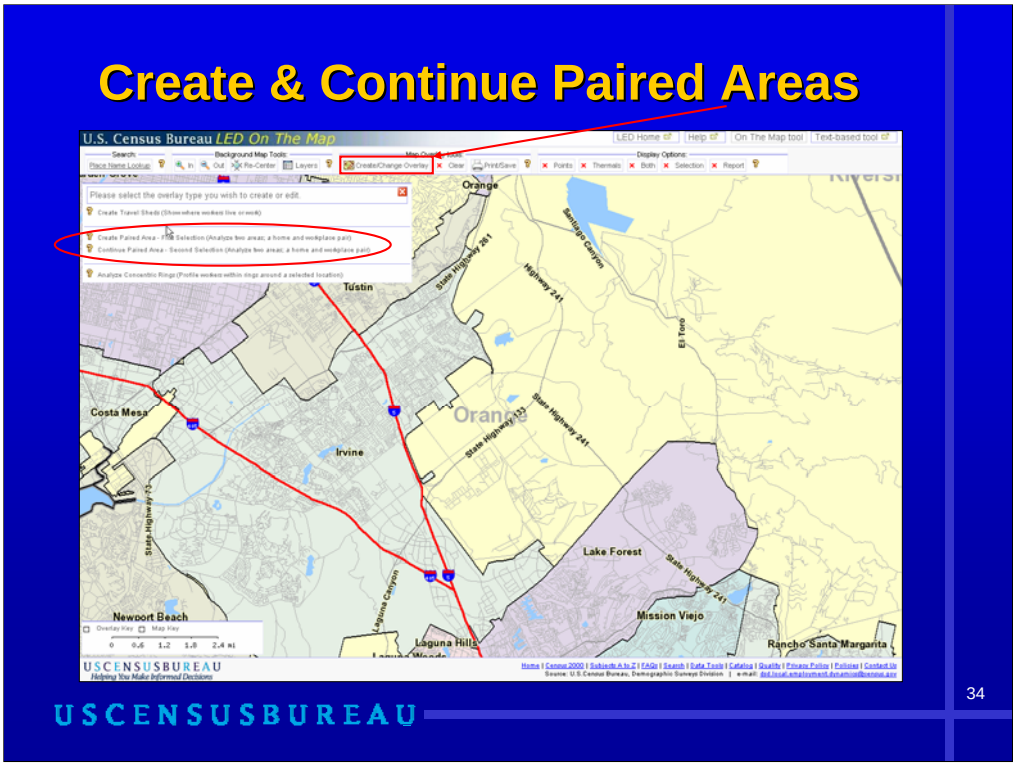
After you've created your desired geography, you can either plot points as we've done before, or go straight to the report if you don't want the visuals.

The QWI Report is available for the Labor Shed option only. These 10 workforce measures are based on the second quarter of each year and are among the QWI shown in LED's other tools, QWI Online and Industry Focus.



STEP: Click on Create/Change Overlay

STEP: Click on Create Paired Area.

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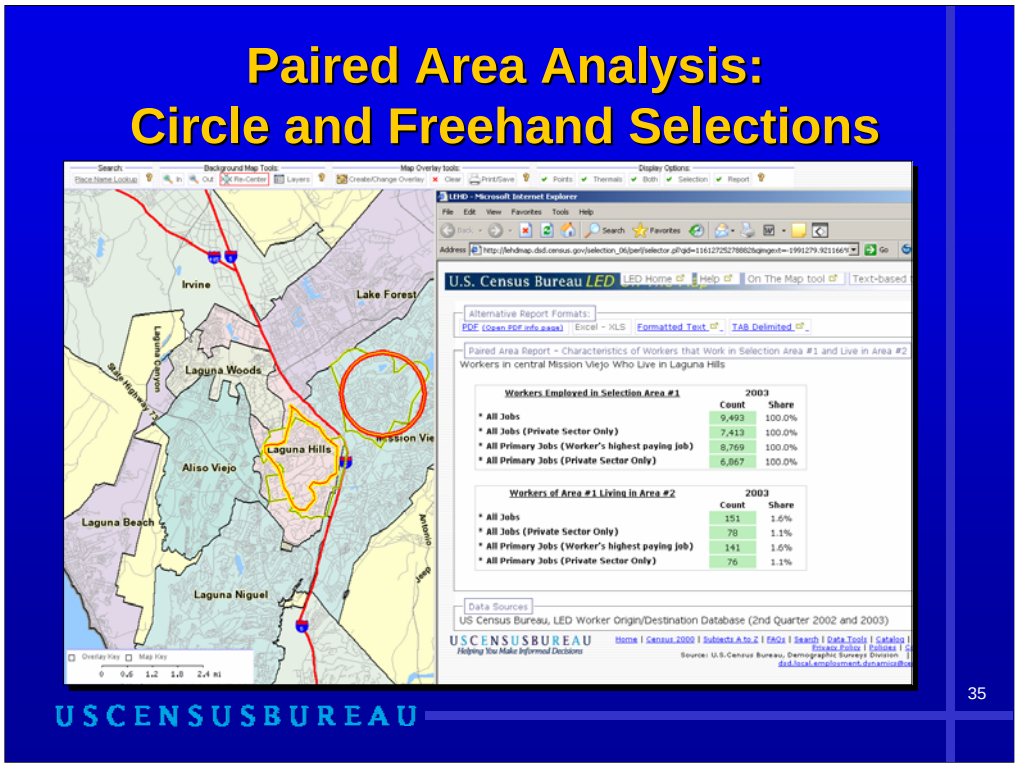
The Paired Area feature is particularly useful for route planning for public transportation. You can determine how many people living in a town work at a particular location and may potentially need transportation.

Use Paired Area Analysis in a labor shed when you want to know about workers from area 1 who live in area 2. In a commute shed, the report will show the residents of area 1 who go to work in area 2.

This starts out just like our Create Travel Shed option but is followed by a second step. Note the Continue Paired Area just below it, after selecting Area 1 using your choice of selection tools, you must return to this spot to select area 2.



STEP: Under Selection tool, click on Circle Selection.

STEP: Set the radius to 1.5 mi using – and + buttons and hit Go. Click on the map to plot the circle's center.

STEP: Click on Create/Change Overlay from Map Overlay tools.

STEP: Click on Continue Paired Area.

STEP: Under selection tool, click on Freehand.

STEP: Click and draw desired area freehand.

STEP: Click on Report under Display Options.

STEP: Close report by clicking "x" at top right.

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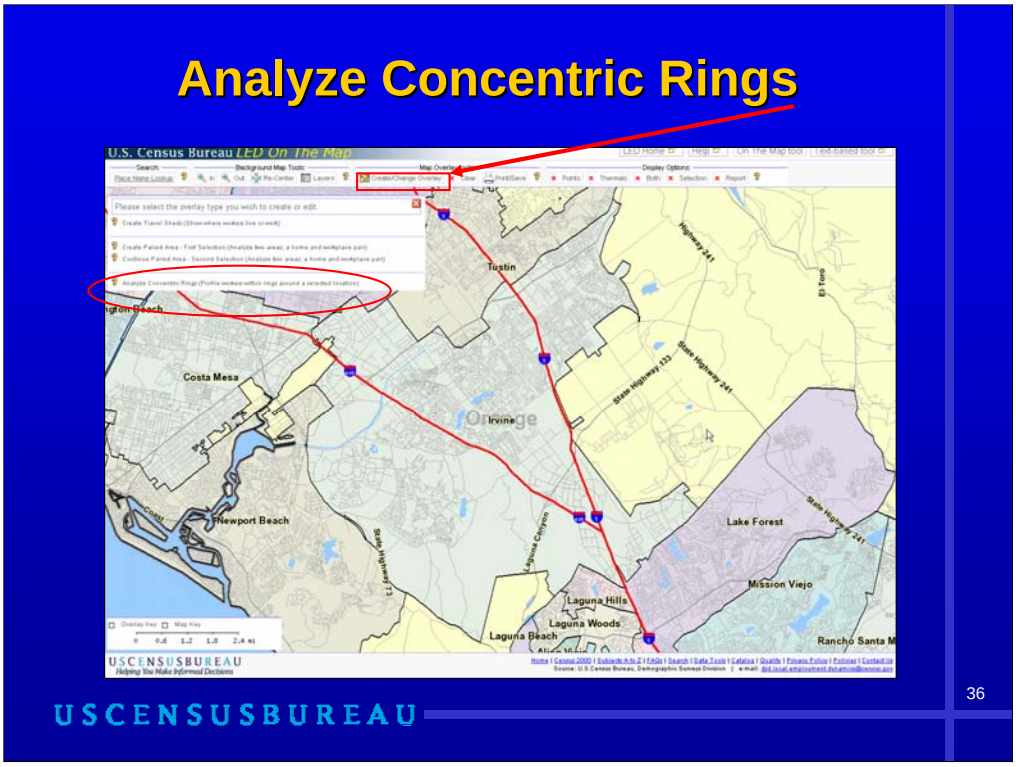
This example used the circle and freehand selection tools, but you could have chosen any two of the selection tools.

HINT: The first area, where the jobs are if you are analyzing a Labor Shed, will be outlined with red inside and outside and yellow in the middle, so predominantly red. The second area, which is where workers live and may need transportation, will be the reverse, so predominantly yellow. You may want to make it more obvious which area is which when naming your report in the text box under Report Type in the Create travel shed box.



STEP: Click on Create / Change Overlay.

STEP: Click on Analyze Concentric Rings.

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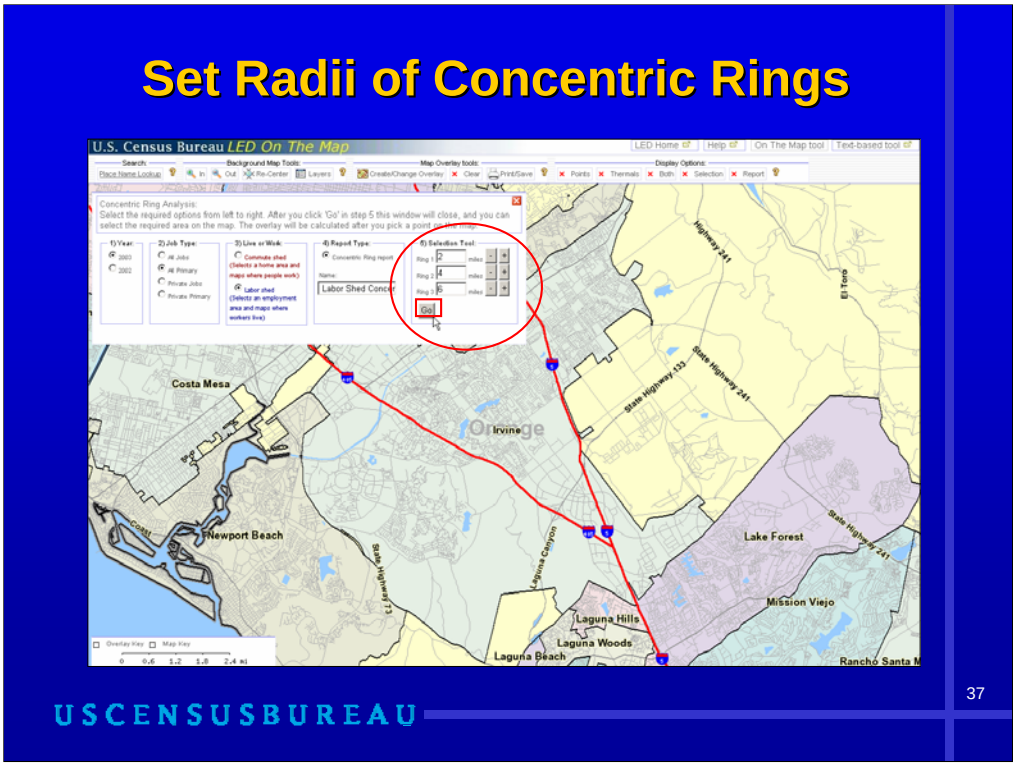
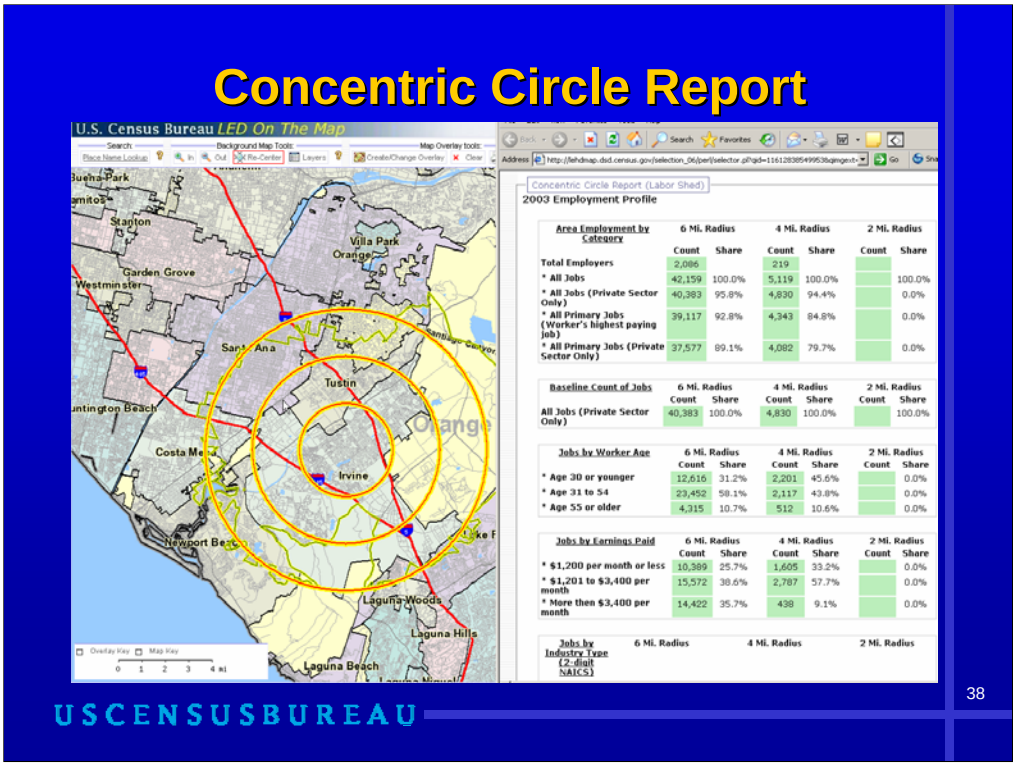
Concentric ring analysis lets you look at the number and characteristics of workers and employers within three circles that share the same center. This creates a map showing where workers live who are employed in a selected area (labor shed). The selection area includes three nested rings set at user defined distances from a specific location.



STEP: Under Selection Tools, use – and + buttons to set the desired rings to 2, 4 and 6 miles.

STEP: Hit Go.

Perhaps the user wants to identify a potential location for a new business and see what the available workforce is around that area. The user can set the rings for the area of recruitment that suits the needs of the new business, in this case, 2-, 4- and 6-miles from a point in Irvine.



STEP: Click on desired point as the center of concentric rings

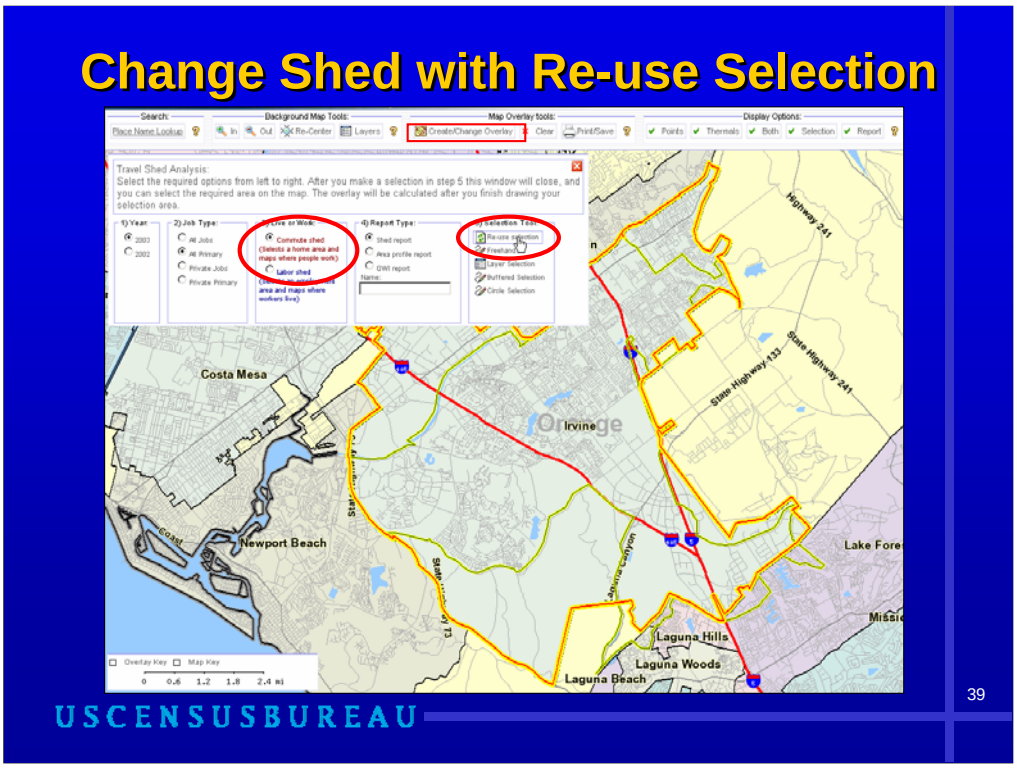
STEP: Click on Points under Display Options (optional.)

STEP: Click on Report under Display Options.

STEP: Close report by clicking "x" at top right.

A new window will open containing the report with information about the workers found in within each circle. In this particular example, no information is listed for the 2 mile radius. This is because On the Map has built in data suppression for areas where there are either too few businesses or too few workers to report without risking disclosure.

By moving the center point even slightly, you may find entirely different results. A likely scenario here is that there is a single big employer on the spot we happened to select.



STEP: Click on Create/Change Overlay

STEP: Click on Create Travel Shed

STEP: Under Live or work, click on Commute Shed to change the shed type.

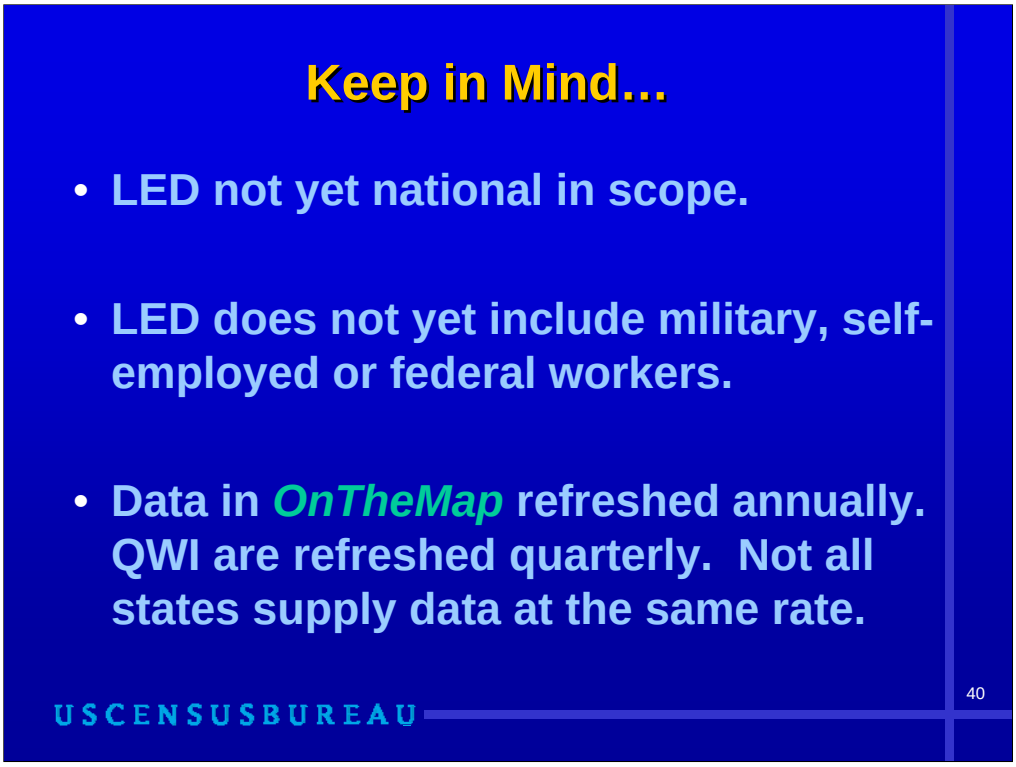
STEP: Under Selection tool, click on Re-use Selection.

STEP: Under Display Options, click on Reports

If you'd like to look at the Commute shed instead of the Labor shed for the same area, you don't have to start all over. Using the Re-use Selection tool in the Travel Shed Analysis Menu saves you many steps, especially if you are using a freehand or buffered selection that is hard to replicate.

In Change/Create Option, select Travel Shed. In area 3, change the radio button from Labor to Commute shed. You may change the report type at the same time.

Then use Re-use Selection option from the Selection Tool. This allows you to keep the geography for Irvine without having to redo all your selections, but look at where people in an area to go work.



Regarding residency patterns across state lines, cross-state flows on the Labor shed side are complete for each state whether in or out of the LED partnership. No cross state flows are available for commute sheds.

Key features on the home page include QuickLinks to three very powerful analytic tools: QWI Online, On the Map, Industry Focus as well as information for state partners and website users.

The center section provides the latest news about the LED program: new partners, the latest releases and information about training.

Q&A about LED are located prominently on the home page.

Ten minute interactive e-learning modules step you through the site and the three data tools.

A “factoid” from the LED data rotates in the lower right corner and links users to profile reports on Older Workers available for 12 states.

The LED site is searchable using Google, which confines its search to the LED pages only.

Contact Us

General Comments/Suggestions
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Local Employment Dynamics
http://lehd.did.census.gov

Community Economic Development HotReport
http://ced.census.gov

Join the OnTheMap ListServ
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